ORDER NO. VRD-8308-478

Service Manual

Video Cassette Recorder

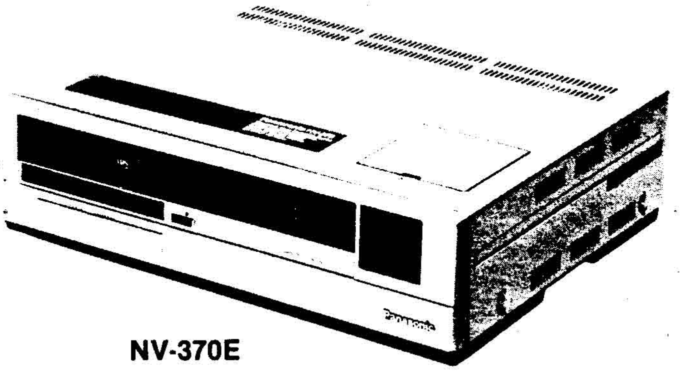
Panasonic VHS

NV-370-E -EG -B

Vol. 1

Summary Operating Instructions

NV-370EG/B


NV-370E

SPECIFICATIONS

Power Source: 220V AC 50/60Hz (NV-370E/EG)
240V AC 50/60Hz (NV-370B)
Power Consumption: Approx. 28 watts
Television System: CCIR: 625 lines, 50 fields
PAL colour signal (NV-370E/B)
CCIR: 625 lines, 50 fields PAL
/DDR SECAM colour signal
(NV-370EG)
Video Recording System: 2 rotary heads, helical scanning system
Luminance: FM azimuth recording
Colour signal: converted subscarrier phase shift recording
Audio Track: 1 track
Tape Format: Tape width 12.7mm high density tape
Tape Speed: 23.39mm/s
Record/Playback Time: 240min. with NV-E240
FF/REW Time: Less than 5.5min. with NV-E180
Heads: Video: 2 rotary heads
Audio/Control: 1 stationary head
Erase: 1 full track erase
Input Level: Video: VIDEO IN connector (BNC)
1.0Vp-p, 75Ω terminated
Audio: LINE IN jack (Phono jack)
More than −20dB, 50kΩ

TV Tuners: (NV-370E)
VHF CH2 ~ CH12
UHF CH21 ~ CH69
(NV-370EG)
VHF CH2 ~ CH12
UHF CH21 ~ CH69
(NV-370B)
UHF CH21 ~ CH69
Output Level: Video: VIDEO OUT connector (BNC)
1.0Vp-p, 75Ω terminated
Audio: LINE OUT jack (Phono jack)
−6dB, less than 1kΩ
RF Modulated: UHF 36 ± 4CH
73 ± 3dB 75Ω terminated
Weight: 8.2kg
Dimensions: 430(W) x 115(H) x 372(D) mm
Accessory Supplied: 1 pc. DIN-RF Cable VJA0130
1 pc. Video Cassette Tape (NV-370E/B)
1 pc. Wired Remote Controller,
VSQ0329 (NV-370E [Black]/EG/B)
VSQ0330 (NV-370E [Silver])
Optional Accessories: Video cassette tape:
NV-E240 Approx. 344m, 240min.
NV-E180 Approx. 258m, 180min.
NV-E120 Approx. 174m, 120min.
NV-E60 Approx. 88m, 60min.

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

INTRODUCTION

This service manual contains technical information which will allows service technicians to understand and service the PAL VHS Video Tape Recorder Models NV-370-E/-EG/-B.
The NV-370-E/-EG/-B have many special features as shown below.
These features in addition to the basic PAL VHS Format make the unit an ideal one for your culture and entertainment.

FEATURES

1. **Slim Design and Front Loading System**
   This highly functional design allows loading the video cassette from the front, thus minimizing the space required for the placement. Together with the compact dimensions, it enables mounting this VTR stacked between audio components in a standard-size audio rack.

2. **Multi-Function Display**
   Whenever an operation button is pressed, the activated function is immediately indicated on this easy-to-see display. It shows you at a glance, in what operation mode the VTR is.

3. **Recording at the Touch of a Single Button**
   The Recording Button is arranged clearly separated from the other operation buttons to make this one-button recording feature not only very convenient, but equally safe.

4. **Memory Function**
   The Memory function makes it simple and fast to find a certain position on the tape later again, simply by resetting the tape counter and pressing the Memory Button. During Rewind or Fast Forward, the tape will then stop exactly at the desired position.

5. **Cue and Review**
   Locating any desired scene or position on the tape is easy and fast, while watching the tape being played back at about 5 times normal speed in forward or reverse direction. Noise bars with fixed position assure a highly viewable playback picture.

6. **Picture Sharpness Control**
   This is for making picture's outline sharper or softer.

7. **One-Touch Timer Recording (OTR)**
   Simply by pressing the OTR Button between 2 and 5 times, the VTR can be programmed for 30, 60, 90 or 120 minutes of recording with immediate start.

8. **14-Day. 1-Programme Timer**
   The built-in timer can be programmed up to 2 weeks in advance for automatic unattended recording of a TV programme or even repeated recording of the same TV programme every day at the same time.

9. **Remote Controller**
   This handy wired remote control allows operation of all major VTR functions from a distance of up to 5 meters.

10. **Recording one programme while watching another**
    The built-in tuner allows you to record a programme that you don't want to miss while watching another programme.

11. **Auto rewind (except timer recording and OTR)**
    When the tape reaches its end during playback and recording it will automatically rewind, so it's ready for storage or to be viewed again from the beginning.

12. **Standby OTR Recording (NV-370 EG/B)**
    By pressing the Standby Button between 1 and 4 times, the VTR can be programmed to begin recording in 30, 60, 90 or 120 minutes. By subsequently pressing the OTR Button repeatedly, a recording duration of 30, 60, 90 or 120 minutes can be selected for this delayed OTR recording.

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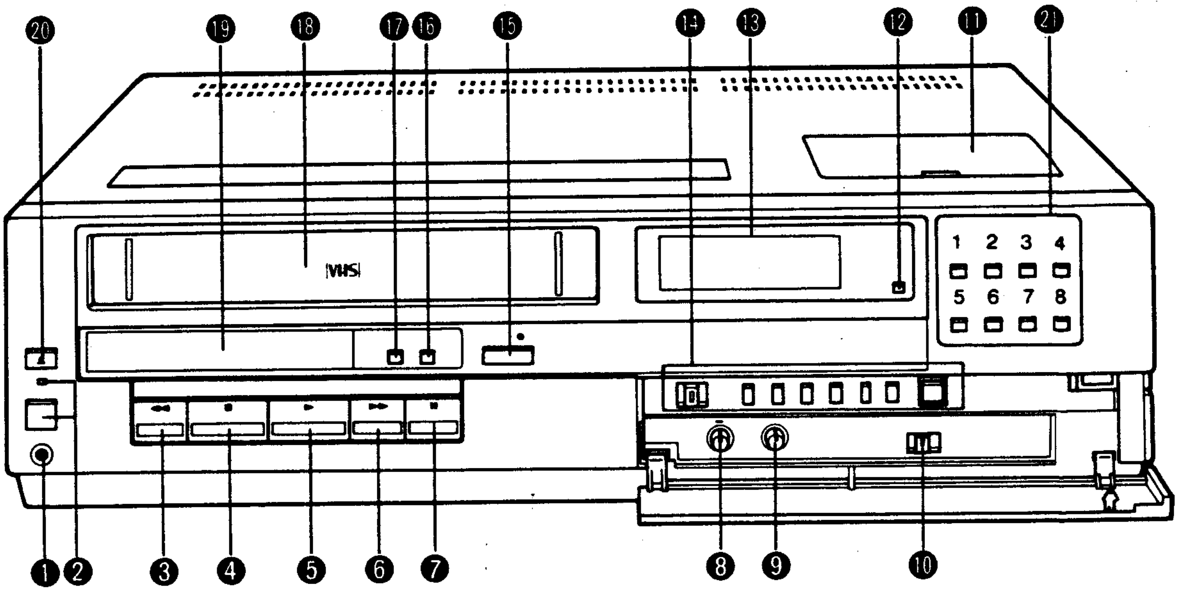
CONTROLS AND COMPONETS

TOP and FRONT

NV-370E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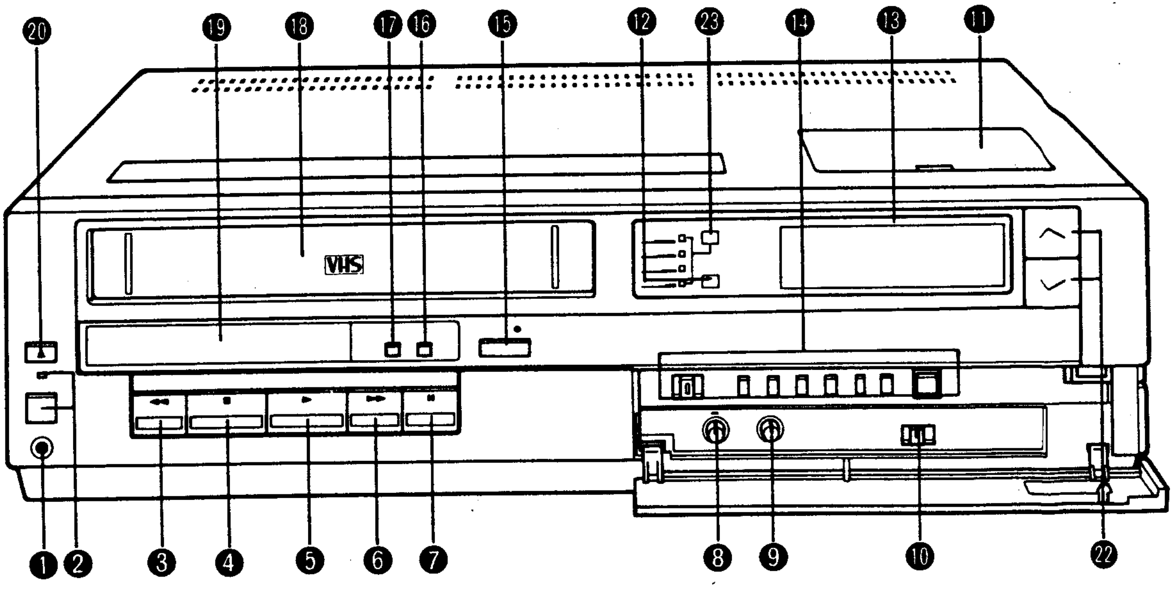
NV-370EG/B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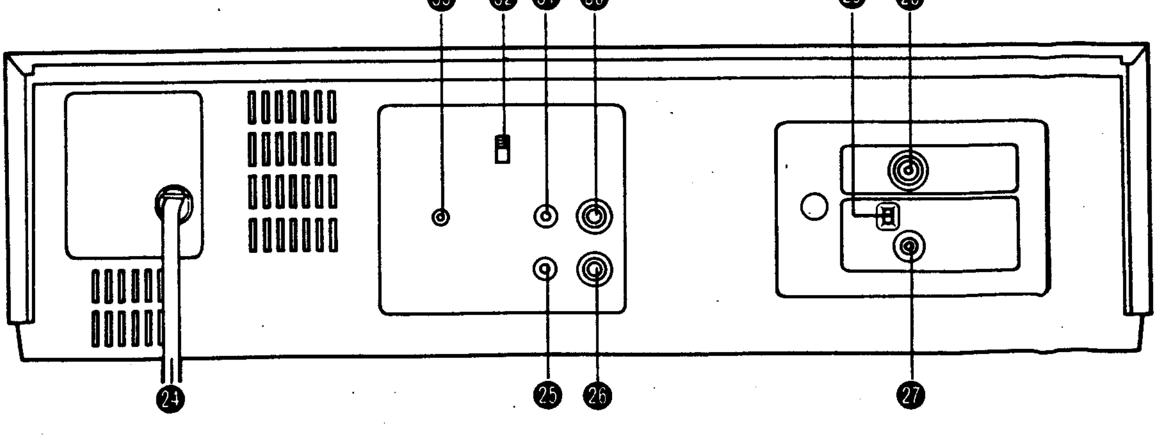
REAR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FUNCTION OF CONTROLS AND COMPONENTS

TOP and FRONT

❶ **Remote Control Socket**
For connection of the remote controller.

❷ **VTR ON/OFF Switch with Indicator**

❸ **Rewind/Review Button**
Push to rewind the tape.
When this button is pressed during playback, the picture can be scanned in reverse at 5 times normal speed. Review will continue as long as the button is depressed.

❹ **Stop Button**
Push to stop the tape.

❺ **Play Button**
Push to play back a recorded tape.

❻ **Fast Forward/Cue Button**
Push to fast-forward wind the tape.
When this button is pressed during playback, the picture can be scanned will play back at 5 times normal speed. Cueing will continue as long as the button is depressed.

❼ **Pause/Still Button**
Push to temporarily stop the tape during recording in order to avoid recording unwanted material, or to view a paused picture during playback. Push again to release the tape from pause.

❽ **Tracking Control**

Noisy Picture

Should tapes recorded on another machine show noise or a streaky playback picture rotate this control slowly in either direction until the picture is clear. The control should normally be kept in the "FIX" position.

❾ **Picture Sharpness Control**
The picture sharpness control enables the playback picture to be adjusted so that its outlines are made sharper or softer.
It has no effect when recording.

❿ **Input Signal Selector**
Use to select between the two incoming signals from which recordings can be made.
1) In the "CAMERA" position, the signal which is connected to the Video Input Connector and the Audio Input Jack will be recording.
2) In the "TUNER" position, the signal from the built-in tuner will be recorded.

⓫ **Tuner Set-up Controls**
Used to tune to any broadcast channel in your area.

⓬ **One-touch timer recording (OTR) Button**
Automatic recording for 30, 60, 90 or 120 minutes is possible by pushing this button.

⓭ **Timer Display**
Indicates either the time and day or recording start/stop timer for the timer recording.

⓮ **Timer Controls**
The timer controls are used to set the clock for the present time and to programme start and stop for timer recording.

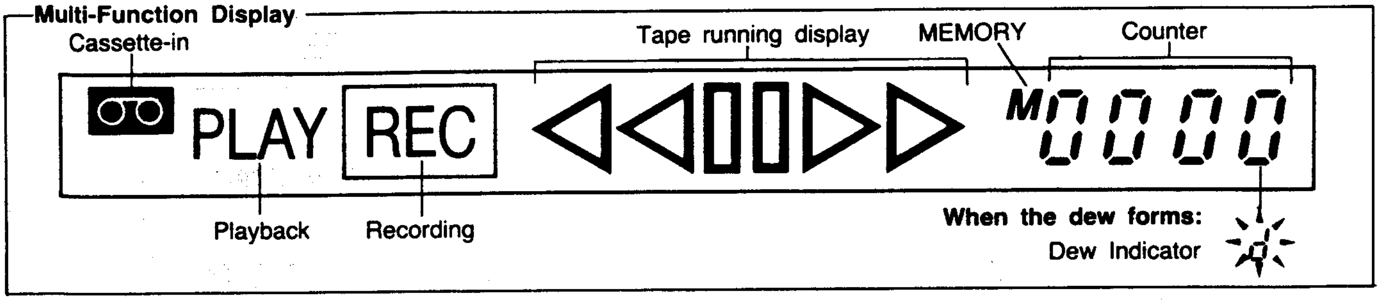
⓯ **Record Button**
Push together with Play Button to start recording.

⓰ **Memory Button**
When this switch is turned on, the tape will automatically stop just past the point where the Counter of Multi-Function Display was previously set to "0000".
* The tape will not stop at this point during Cue or Review mode.

⓱ **Reset Button**
Push the reset button to reset the Counter of Multi-Function Display to "0000".

⓲ **Cassette Holder**

⑲ **Multi-Function Display**



⑳ **Eject Button**
Press this button to remove the cassette.

㉑ **Channel Selector Buttons (NV-370E)**
Push the desired channel selector buttons to select the channel you wish to view or record.

㉒ **Channel up and down Buttons (NV-370EG/B)**
Press the channel up and down buttons to select the channel you wish to view or record.

㉓ **Standby Button (NV-370EG/B)**
Before pressing the OTR button to select the recording duration, press the Standby button repeatedly to select the time delay, after which the OTR recording should begin.

REAR

㉔ **AC Mains Cord**

㉕ **Audio Output Socket**
For connection to a TV monitor or another Video Cassette Recording. Not used with an ordinary TV.

㉖ **Video Output Socket**
For connection to a TV monitor or another Video Cassette Recorder. Not used with an ordinary TV.

㉗ **RF Input Socket**
For connection with the external aerial.

㉘ **VTR RF Output Socket**
For connection to the antenna terminal (COAXIAL type) of TV with the DIN-DIN Coaxial Cable supplied with the unit.

㉙ **RF Signal Level Switch**
Used to attenuate the reception of the VHF and/or UHF antenna signals.
If the reception is normal, set to "HIGH". If the signal strength is high and a stripped pattern appears at the top of the picture on TV, set to "LOW".

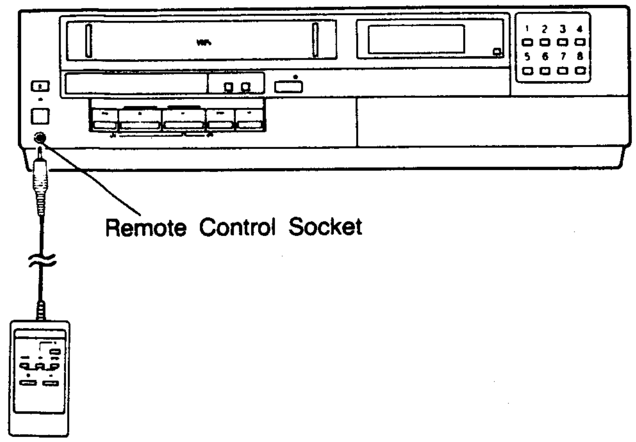
㉚ **Video Input Socket**
For connection of a video camera or other video input signal to be recorded.

㉛ **Audio Input Socket**
For connection of a video camera audio output or other audio line input signal to be recorded.

㉜ **Colour Mode/Test Signal Switch**
This switch has the following two functions:
(1) to tune the TV to the RF output channel and (2) to stabilize the colour image during recording or playback. The switch should normally be set to the "AUTO" position.
To tune the television to the RF output channel:
Move this switch to "TEST".
To stabilize the colour image:
Move this switch to "COLOUR" to make a stable colour recording in a place where the supplied current is extremely low.
For playback, this switch must also be in "COLOUR".

㉝ **Camera Remote Control Socket**
For connection of a remote-control cable from a video camera.

REMOTE CONTROLLER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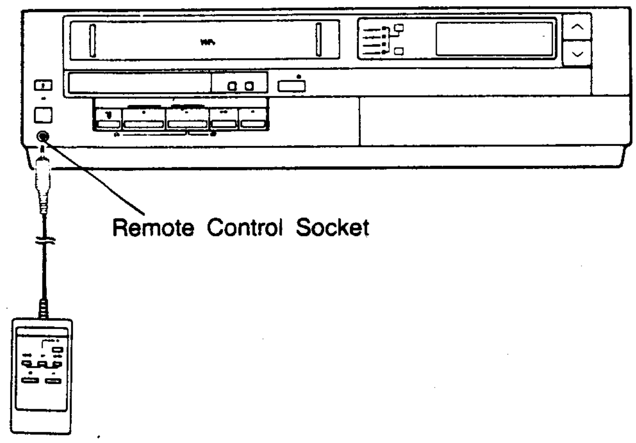
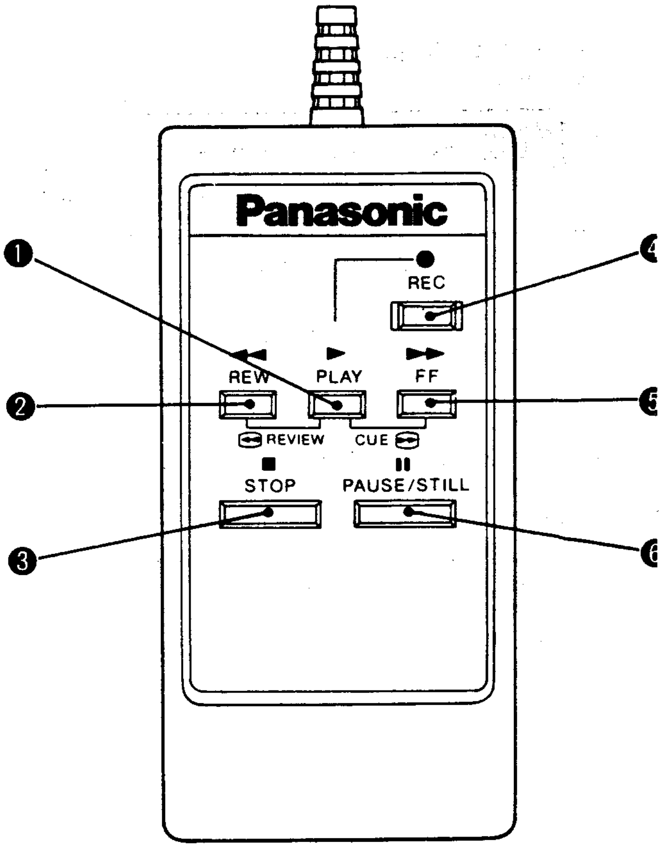
5 6 7 8
Remote Control Socket


Remote Control Socket


Panasonic
REC
REW
PLAY
FF
REVIEW
CUE
STOP
PAUSE/STILL
❶
❷
❸

VSQ0329 or VSQ0330

Operations may be performed from a distance with the supplied remote controller. (The cord length is approximately 5 meters).

❶ **Play Button**

❷ **Rewind/Review Button**

❸ **Stop Button**

❹ **Record Button (Two Buttons Entry)**
To start recording, press with the PLAY button simu taneously.

❺ **Fast Forward/Cue Button**

❻ **PAUSE/STILL Button**

ORDER NO. VRD-8308-476

Service Manual

Video Cassette Recorder

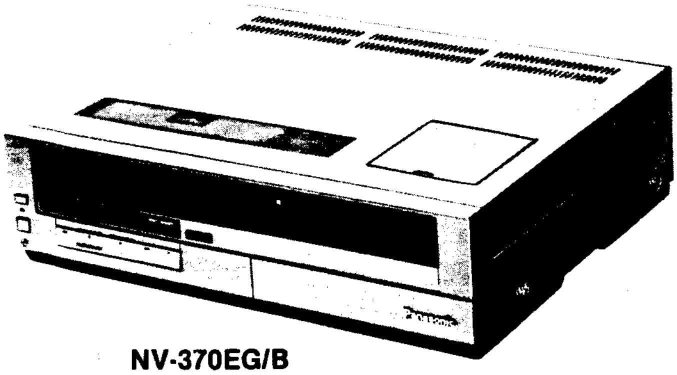
Panasonic VHS

NV-370-E
-EG
-B

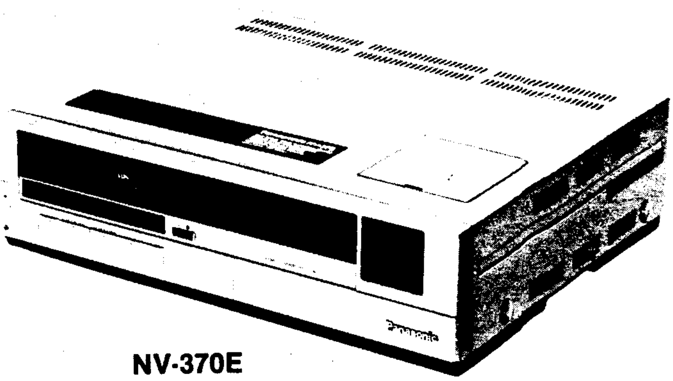
Vol. 2

Mechanical Adjustment Procedures

Electrical Adjustment Procedures



NV-370EG/B



NV-370E

SPECIFICATIONS

Power Source:	220V AC 50/60Hz (NV-370E/EG) 240V AC 50/60Hz (NV-370B)
Power Consumption:	Approx. 28 watts
Television System:	CCIR: 625 lines, 50 fields PAL colour signal (NV-370E/B) CCIR: 625 lines, 50 fields PAL /DDR SECAM colour signal (NV-370EG)
Video Recording System:	2 rotary heads, helical scanning system Luminance: FM azimuth recording Colour signal: converted subscarrier phase shift recording
Audio Track:	1 track
Tape Format:	Tape width 12.7mm high density tape
Tape Speed:	23.39mm/s
Record/Playback Time:	240min. with NV-E240
FF/REW Time:	Less than 5.5min. with NV-E180
Heads:	Video: 2 rotary heads Audio/Control: 1 stationary head Erase: 1 full track erase
Input Level:	Video: VIDEO IN connector (BNC) 1.0Vp-p, 75Ω terminated Audio: LINE IN jack (Phono jack) More than −20dB, 50kΩ
TV Tuners:	(NV-370E) VHF CH2~CH12 UHF CH21~CH69 (NV-370EG) VHF CH2~CH12 UHF CH21~CH69 (NV-370B) UHF CH21~CH69
Output Level:	Video: VIDEO OUT connector (BNC) 1.0Vp-p, 75Ω terminated Audio: LINE OUT jack (Phono jack) −6dB, less than 1kΩ RF Modulated: UHF 36±4CH 73±3dB 75Ω terminated
Weight:	8.2kg
Dimensions:	430(W)×115(H)×372(D)mm
Accessory Supplied:	1 pc. DIN-RF Cable VJA0130 1 pc. Video Cassette Tape (NV-370E/B) 1 pc. Wired Remote Controller, VSQ0329 (NV-370E [Black]/EG/B) VSQ0330 (NV-370E [Silver])
Optional Accessories:	Video cassette tape: NV-E240 Approx. 344m, 240min. NV-E180 Approx. 258m, 180min. NV-E120 Approx. 174m, 120min. NV-E60 Approx. 88m, 60min.

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

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MECHANICAL ADJUSTMENT PROCEDURES

DISASSEMBLY OF CABINET PARTS AND P.C. BOARDS

1. DISASSEMBLY FLOWCHART

This flowchart indicated disassembly stems of the cabinet parts in order to find the item(s) necessary for servicing.

When reassembling, perform the step(s) in the reverse order.

Note:

1. When removing the Front Panel, Work with care not for breaking the locking portion of the panel.

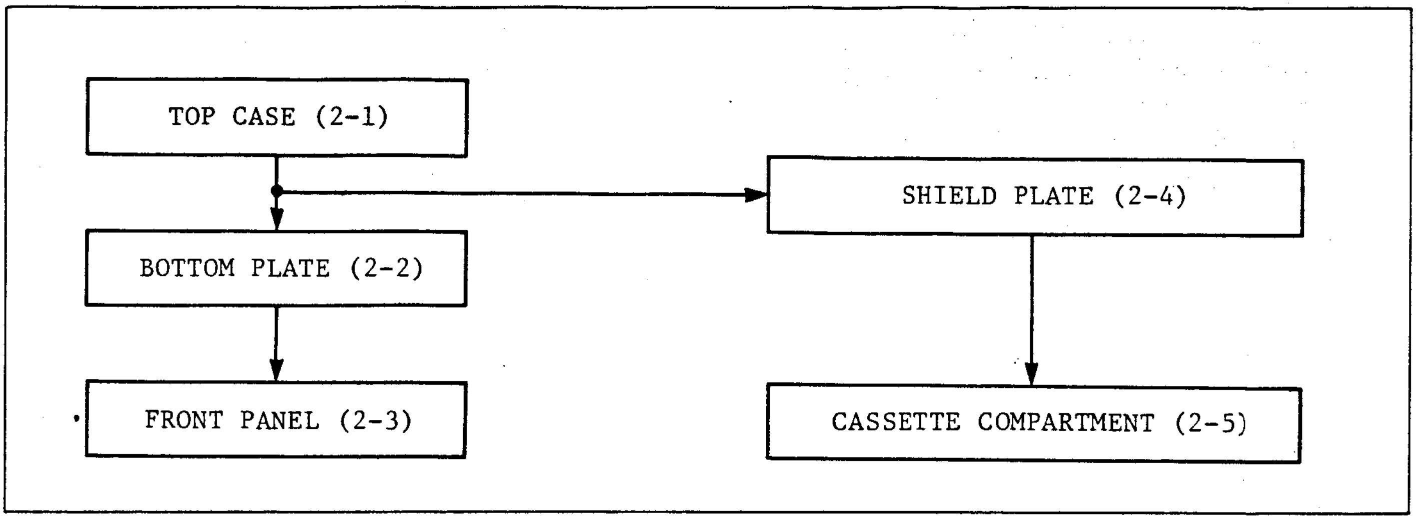

TOP CASE (2-1)
BOTTOM PLATE (2-2)
FRONT PANEL (2-3)
SHIELD PLATE (2-4)
CASSETTE COMPARTMENT (2-5)

Fig. M1

2. DETAILED DISASSEMBLY METHOD

2-1. Removal of Top Case
Remove the 4 screws (A). Then carefully lift the rear of case to remove.

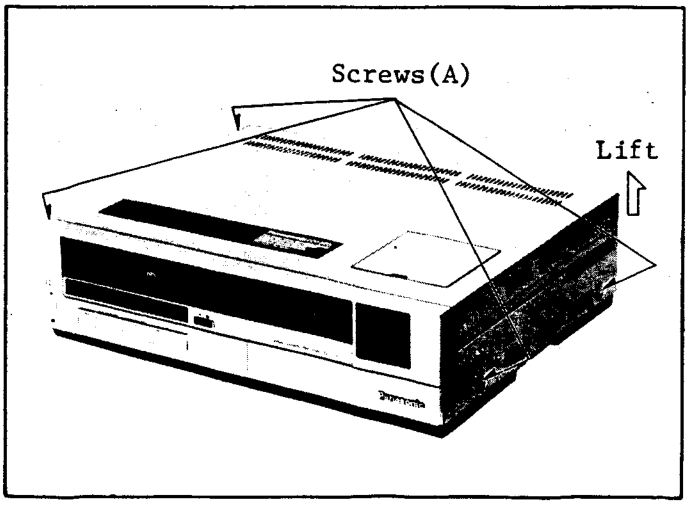

Screws(A)
Lift

Fig. M2

2-2. Removal of Bottom Plate
Place the deck up side down so the bottom side face up ward.
Then remove the 9 screws (B) to remove.
Note:
Place the cushion under the deck for not being damaged the top portion of the deck.

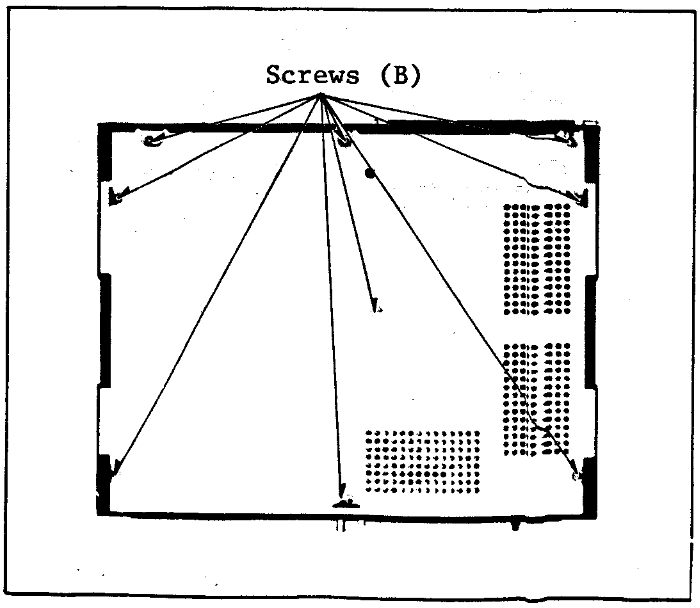


Fig. M3

2-3. Removal of Front Panel

Remove 3 screws (C) and unlock the 6 locking portions (D).
Then hold the top portion of the panel and turn it toward the front of the deck to remove.

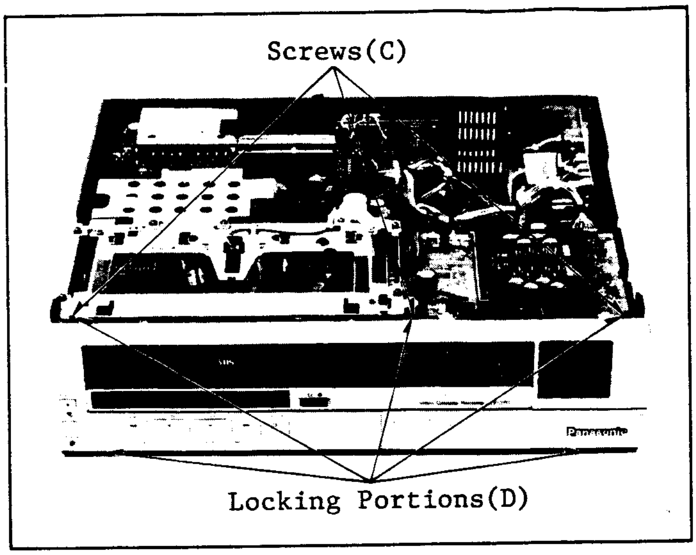


Fig. M4

2-4. Removal of Shield Plate.

Loosen 5 screws (E) and remove the Shield Plate.

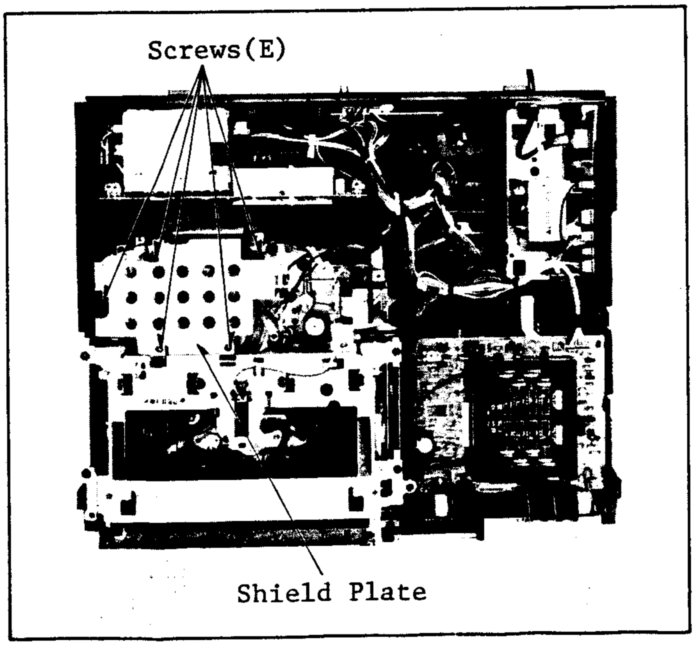


Fig. M5

2-5. Removal of Cassette Compartment

Disconnect the connector P1507 from the Front Loading Motor Connection P.C. Board, and remove 4 screws (F).
Then carefully pull out the Cassette Compartment.

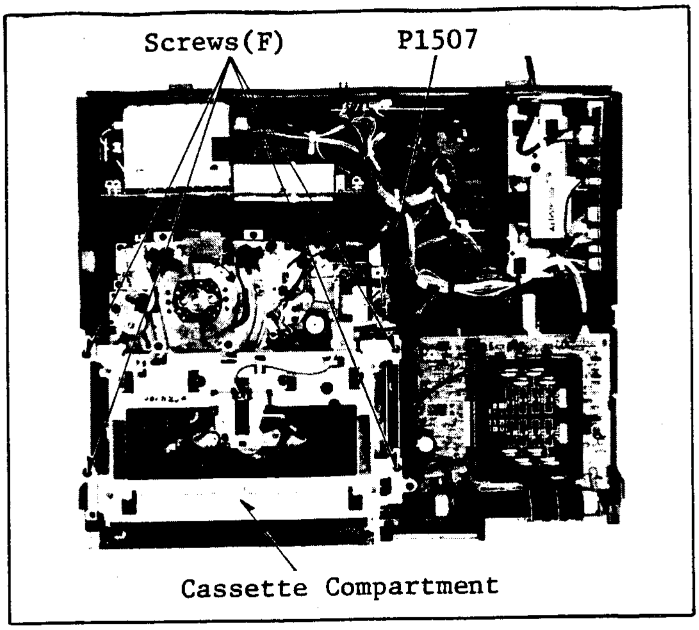


Fig. M6

3. P.C. BOARD OPENING METHOD

3-1. Opening of the Operation P.C. Board Unit, Main P.C. Board Unit and the Head Amp/Luminance (2) P.C Board Unit.

1. Remove the Top Case, Bottom Plate and the Front Panel. (Refer to Detailed DISASSEMBLY METHOD Item 2-1, 2-2 and 2-3.)
2. Remove 2 screws (A), and remove the Operation P.C. Board Unit.

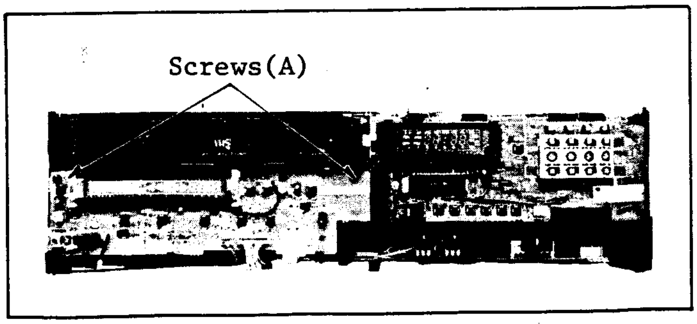


Fig. M7

3. Remove the 8 screws (B), and carefully unlock the 2 locking tabs (C). Then open the Main P.C. Board Unit and the Head Amp/Luminance (2) P.C. Board Unit.

Note:
Remove the Operation P.C. Board Unit before opening the Main P.C. Board Unit and Head Amp/Luminance (2) P.C. Board Unit.

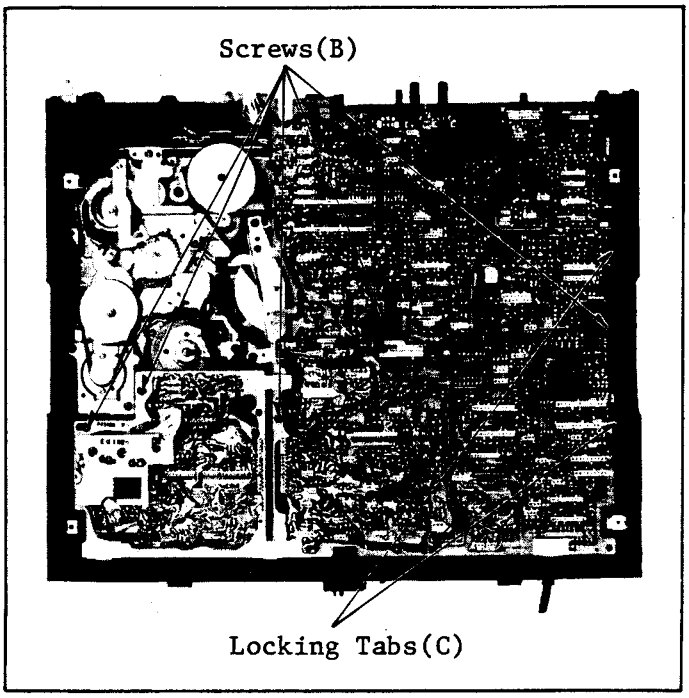

Screws(B)
Locking Tabs(C)

Fig. M8

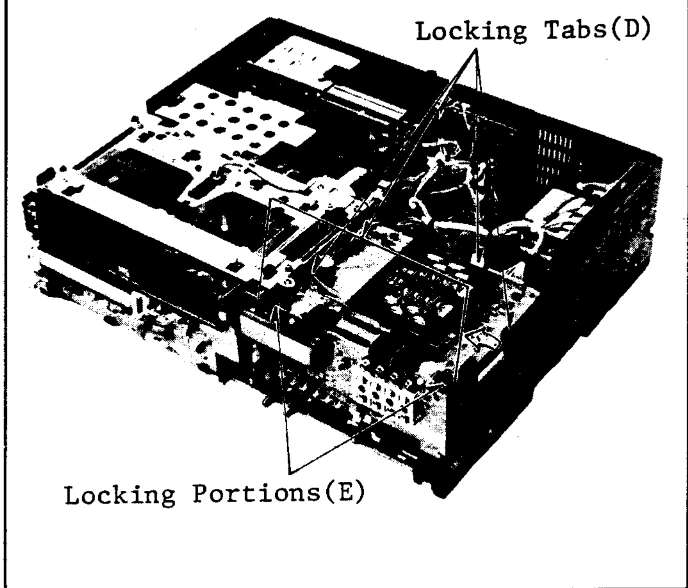

Locking Tabs(D)
Locking Portions(E)

Fig. M10

3-2. Opening of the Timer P.C. Board Unit and CH Preset P.C. Board Unit

1. Remove the Top Case, Bottom Plate and the Front Panel. (Refer to Detailed DISASSEMBLY METHOD Item 2-1, 2-2 and 2-3.)
2. Disconnect the connectors P7501 and P7503 from the CH preset P.C. Board Unit and P7502 from the Power Transformer P.C. Board Unit.
3. Unlock the 4 locking tabs (D), and turn the CH preset P.C. Board Unit to front side of the deck till the 2 locking portion (E) are unlocked.

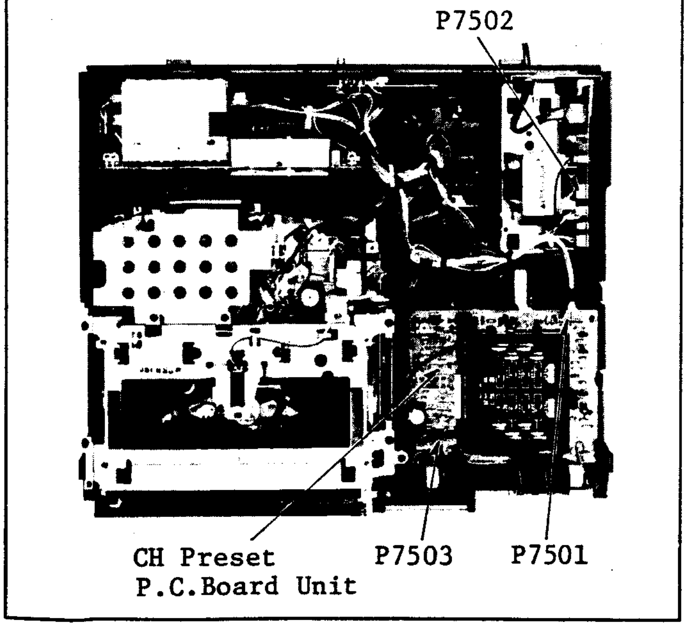

P7502
CH Preset
P.C.Board Unit
P7503
P7501

Fig. M9

4. Next, hold and pull out the 2 locking tabs (F), and open the CH preset P.C. Board Unit and Timer P.C. Board Unit.

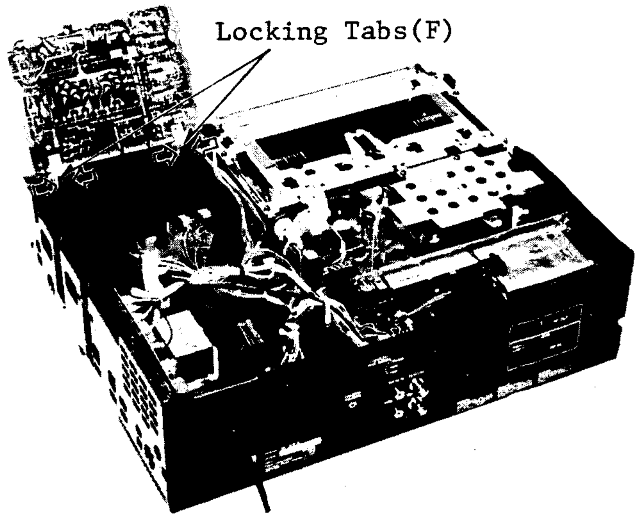

Locking Tabs(F)

Fig. M11

ADJUSTMENT PROCEDURES

1. Confirmation of Pressing Force

Equipment Required: Fan-Type Tension Gauge (VFK66)

1. Remove the Top Case, Bottom Plate, Front Panel, Shield Plate and the Cassette Compart having a cassette tape in and with P1507 connector Unit.
2. Push the Play button for setting the deck to Playback condition.
3. Set Fan-Type Tension Gauge to the part (A) of Main Pressure Arm Unit.
4. Press the Arm with the Gauge, in the direction indicated by the arrow as shown below.

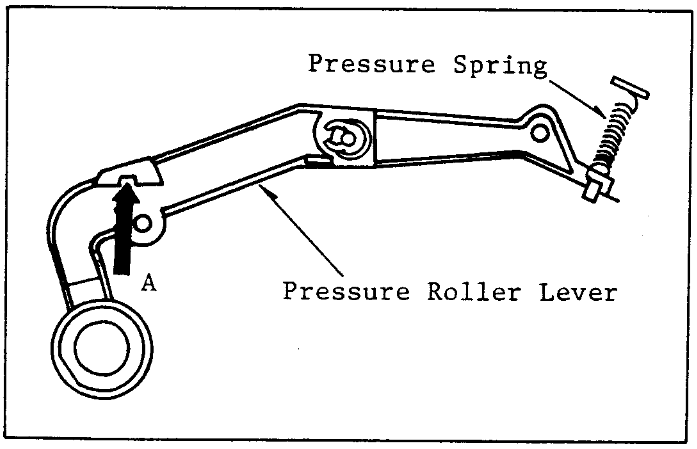


Fig. M12

5. Confirm that reading of the Tension Gauge is 1600 ± 350g at the moment of roller stop.
6. If it is out spec, replace the pressure spring.

2. Replacement of Upper Cylinder Unit

Work with extreme care when removing or replacing the upper cylinder unit. Do not touch video heads during servicing.

Note:
When install the new Upper Cylinder, it is the same direction as old it.

1. Remove Top Case and Shield Plate. (Refer to "Disassembly Method" section.)
2. Unsolder the 4 lead pins (allow marks).
3. Remove the 2 screws (A) and gently lift the upper cylinder unit from the shaft.
4. Before reinstalling a new one, clean the DD Cylinder shaft and surface engaged with it on the upper cylinder uses soft cloth dampened with freon liquid.
5. Reinstall the new one so that the 4 lead pins put in the allow mark holes and tighten the 2 screws (A).
6. After that the above procedures, resolder the 4 lead pins to complete.

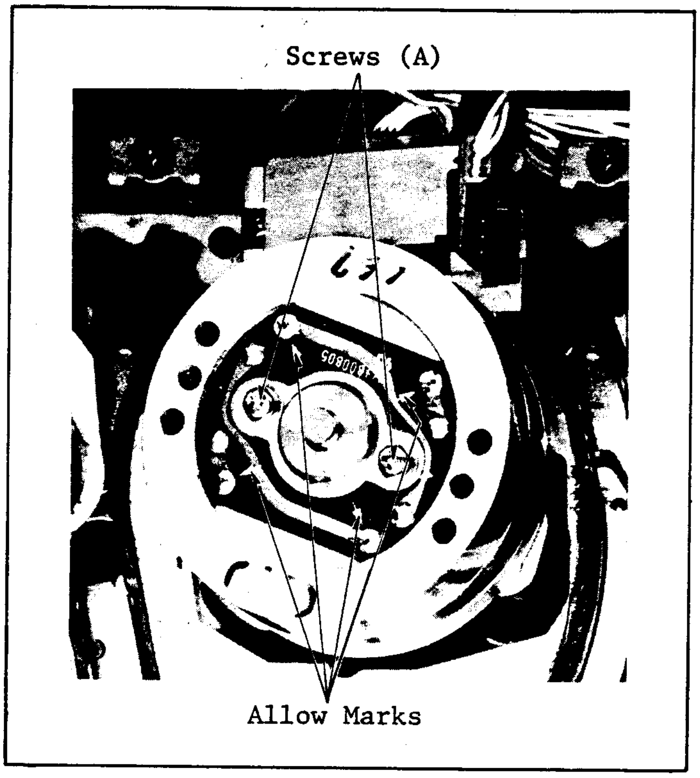


Fig. M13

Note:
Upon completion of replacement, confirm the performance. And if any further maintenance is required, refer to the "Tape Interchangeability Adjustment" section and perform the necessary items.

3. Replacement of DD Cylinder Unit

Work with extreme care when removing or replacing the DD cylinder unit. Do not touch video heads during servicing.

1. Remove the Bottom plate, Top Case, Front Panel and Shield Cover. Then open the Bottom P.C. Board. Refer to "DISASSEMBLY METHOD" section.
2. Remove the shield case (A) and pull out the Power Transistor P.C. Board.

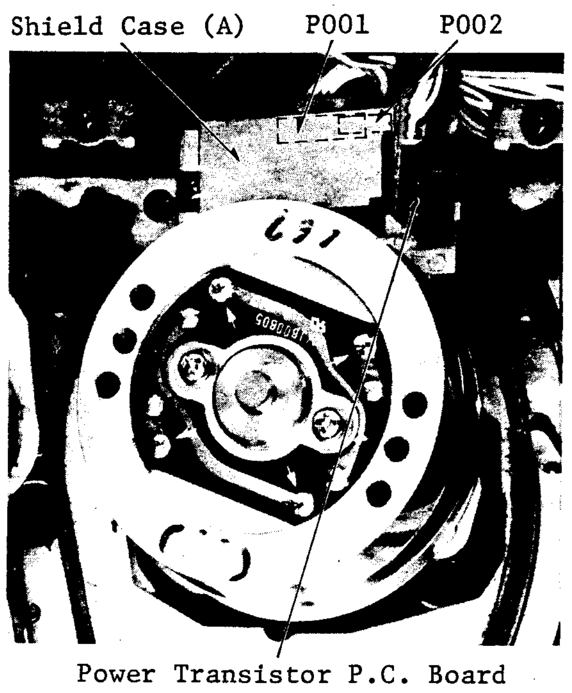


Fig. M14. Removal of DD Cylinder 1

3. Remove the DD cylinder unit by removing 3 screws (B). Since there is very little clearance between the cylinder gently and carefully.
   Then disconnect 2 connectors (P001 and P002).

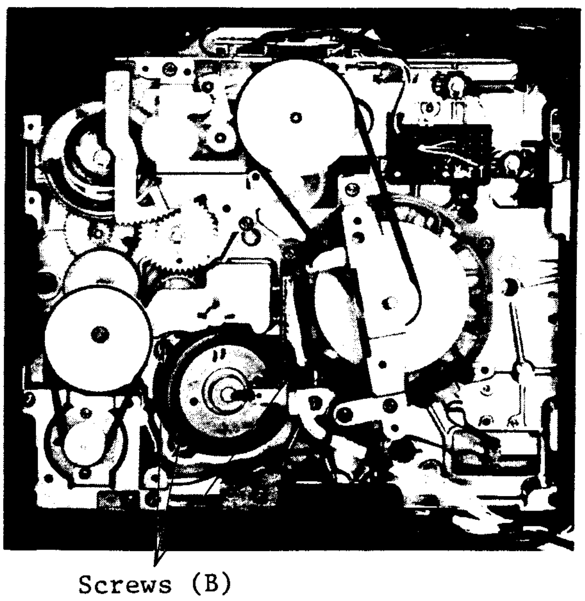


Fig. M15. Removal of DD Cylinder 2

The P001 is connected to the Servo Section of Main P.C. Board Unit, the P002 is connected to the Head Amp and Luminance 2 P.C. Board Unit.

4. Remove the upper cylinder unit from the DD cylinder and reinstall it on new one. To perform this step, refer to "REPLACEMENT OF UPPER CYLINDER UNIT" section.
5. Connect the P001 and P002 to the new DD cylinder unit, and reinstall the new DD cylinder unit to the chassis and tighten the 3 screws (B).
6. Insert the Power Transistor P.C. Board and reinstall the shield case (A).

Note:
Upon completion of replacement, confirm the performance. And if any further maintenance is required, refer to the "Tape Interchangeability Adjustment" section and perform the necessary items.

4. Adjustment of Safety Switch

*Specification
When the cassette tape with tab is used, switch turns on and without tab switch is off.

*Equipment Required
Cassette Holder Fixture (VFK0188)

1. Remove the Top Case, Bottom Plate, Front Panel, Shield Plate and Cassette Compartment.
2. Slightly lossen the 2 screws (A) and (B), and then place the fixture.

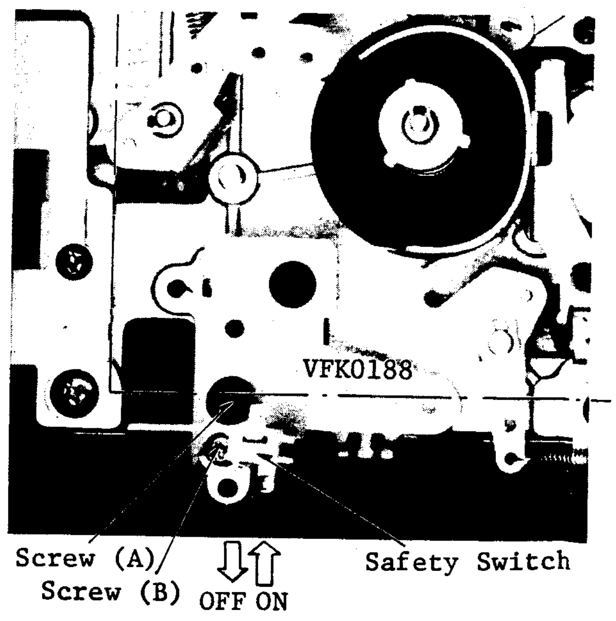


Fig. M16

3. Connect the oscilloscope to Safety Switch Terminal and set it to D.C. position.
4. Turn the switch base counter clockwise and then slowly turn it clockwise until the switch turns ON (Indication of the oscilloscope becomes Low Level from High Level) then tighten the screws (A) and (B).
5. After the adjustment, confirm that the switch turns on by using a tape with safety tab and off without tab.

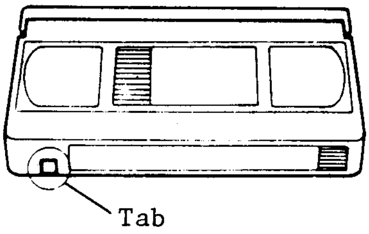


Fig. M17

5. Position Adjustment of Tension Post

*Equipment Required
Tension Post Adjustment Plate .... (VFK0187)
Fine Adjustment Screwdriver .... (VFK0136)

1. Remove the Top Case, Bottom Plate, Front Panel, and Cassette Compartment with P1507 connector unit.
2. Insert a Cassette Tape, and push the PLAY button for loading. As soon as the loading is completed, take out the AC plug.
3. Place the adjustment plate and slightly loosen a screw securing the tension band bracket.
4. Insert the fine adjustment screwdriver into the hole and move the tension band bracket in either of direction so the tension post just touches the fixture.
5. After the adjustment, connect the AC plug for unloading.

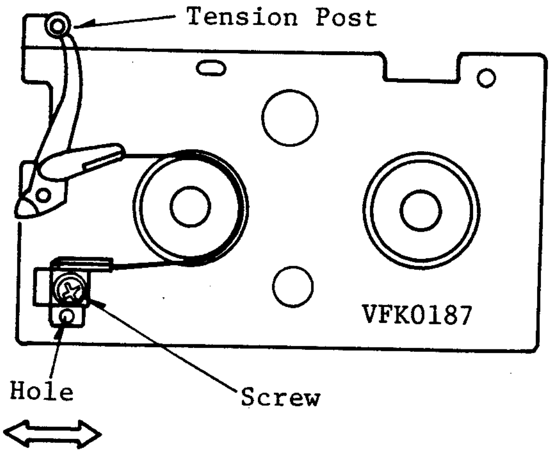
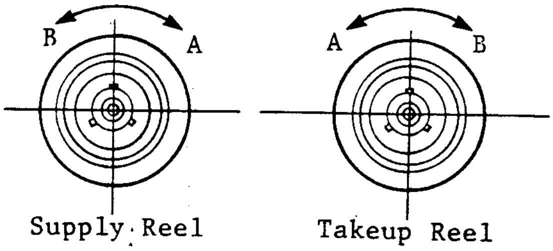


Fig. M18. Adjustment of Tension Post

6. Confirmation of Brake Torque

*Equipment Required:
Torque Gauge .... (VFK0133)
Adaptor for Gauge .... (VFK0134)

Spec.



	A	B
Takeup	450 ∿ 800g-cm	70 ∿ 150g-cm
Supply	450 ∿ 800g-cm	70 ∿ 150g-cm

Fig. M19. Spec. of Brake Torque

1. Remove the Top Case, Bottom Plate, Shield Plate, Front Panel and the Cassette Compartment.
2. Attach the adaptor to the torque gauge and place the deck in STOP mode.
3. Place the torque gauge on the reel table. The weight of gauge should be free against the reel table.

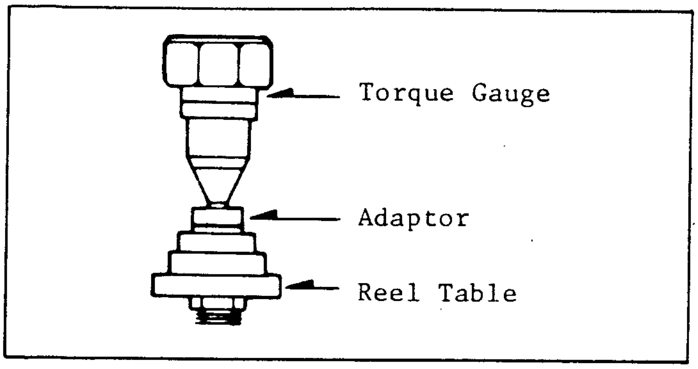


Fig. M20. Measuring Method

4. Turn torque gauge in the direction indicated in the Fig. M19 until the brake begins slipping.

7. Confirmation of Takeup Torque

*Equipment Required
Dial Gauge .... (VFK0133)
Adaptor for Gauge .... (VFK0134)
*Specification
in PLAY mode ... 105 ∿ 145g-cm
in F.F mode .... more than 400g-cm
in REW mode .... more than 400g-cm

1. Remove the Top Case, Bottom Plate, Front Panel, Shield Plate and the Cassette Compartment with the P1507 connector unit.
2. Insert a cassette tape and attach the adaptor to the torque gauge.
3. Set a torque gauge to the Takeup Reel Table, and then push the PLAY button and read a torque gauge. Also perform for F.F mode by pushing the F.F button.
4. Set a torque gauge to the Supply Reel Table, and push the REW button and read a torque gauge.

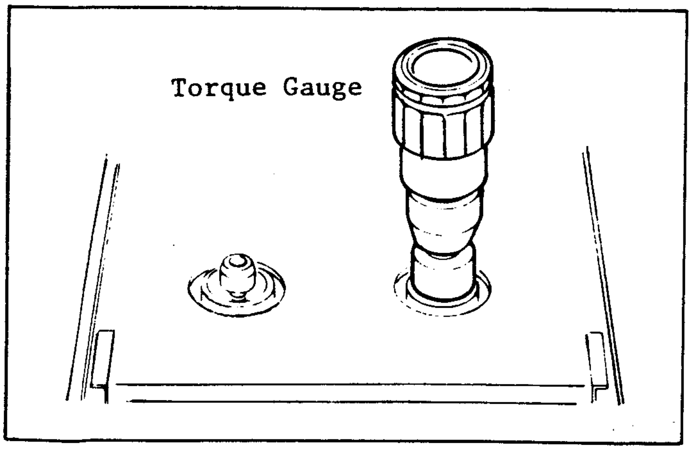


Fig. M21. Measuring Method

Note:
While measuring, the weight of torque gauge should not rest on reel table.

8. Adjustment of Review Torque

*Equipment Required
Dial Torque Gauge .... (VFK0133)
Adaptor for Gauge .... (VFK0134)
*Specification
in Review mode .... 200 ± 20g-cm

1. Remove the Top Case, Bottom Plate, Front Panel, Shield Plate and the Cassette Compartment with the P1507 connector unit.
2. Insert a cassette tape and attach the adaptor to the torque gauge.
3. Set a torque gauge to the Supply Reel Table, and then push the PLAY button and REW button for REVIEW mode.
4. Read a torque gauge.
5. If it is out of spec., change the spring notch.

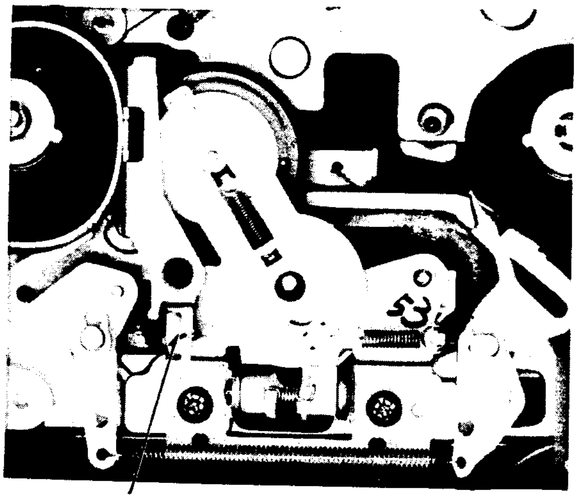


Fig. M22

9. Measurement and Adjustment of Back Tension

A. Measurement Procedures
*Equipment Required
Back Tension Meter (Tentelometer)
VHS Cassette Tape (120 minutes tape)
*Specification: 25 ∿ 30g

1. Remove the Top Case and Shield Plate.
2. Pull the erase head in the direction indicated by the arrow and hold it by adhesive tape.
3. Play back the cassette tape from its beginning and wait until tape running has stabilized. (for approx. 10 to 20 seconds)
4. Insert tension meter in tape path and confirm reading.

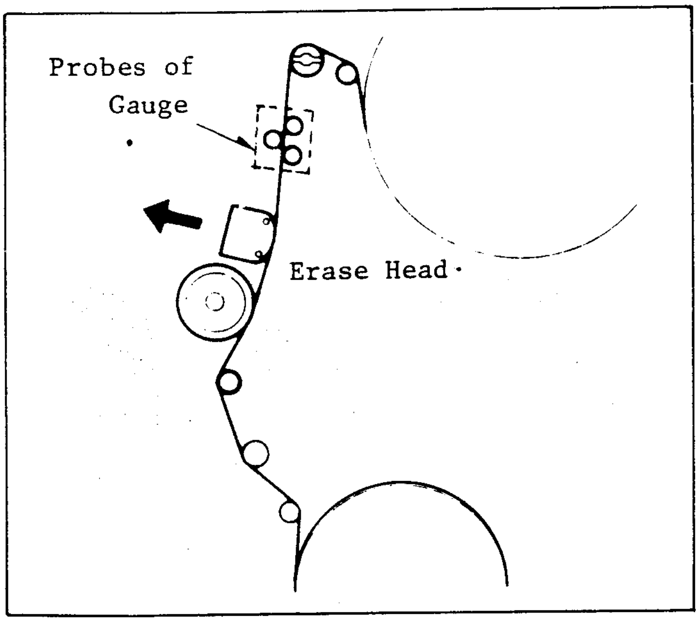


Fig. M23. Measurement of Back Tention

Notes:
1. Make sure that the three probes of the meter are all in good contact with tape, but out of contact with supply inertia roller while measuring.
2. It is recommended to be measured three times as tension meter is very sensitive.

B. Adjustment Procedure
* Equipment Required:
Fine Adjustment Screwdriver .... (VFK0136)

1. Remove the Top Case, Bottom Plate, Front Panel, Shield Case and Cassette Compartment.
2. Loosen a screw (A) and insert the fine adjustment screwdriver into the hole (B).
3. Move the adjustment driver in either of direction indicated by the arrow to obtain the specified tension. Turn the driver clockwise to raise tension, counterclockwise to lower it.
4. Tighten the screw (A), and set the Cassette Compartment. Verify the tension with the meter once again.

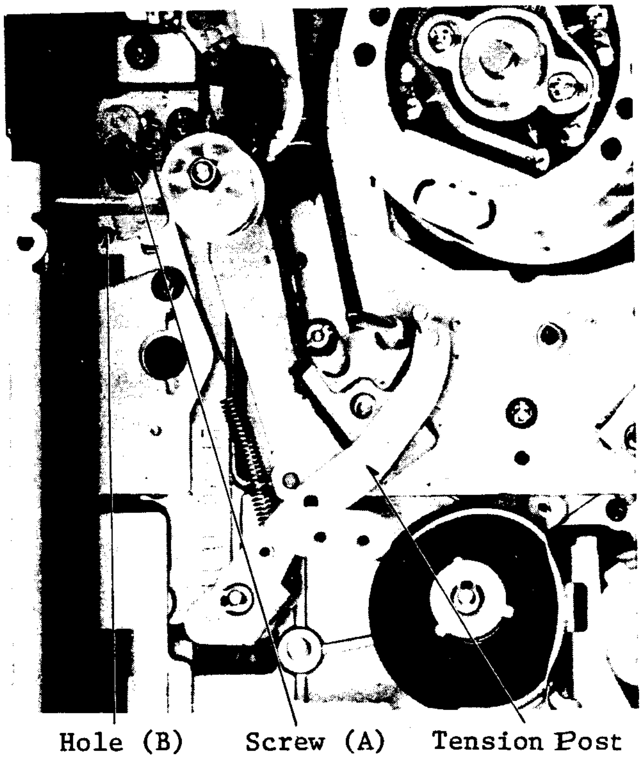


Fig. M24

5. After above the adjustment is completed, remove the adhesive tape.

10. Height Adjustment of Reel Tables

* Equipment Required
Post Adjustment Plate .. (VFK0191)
Reel Table Height
Fixture .... (VFK0190)
* Specification .... 0 ∿ 0.2mm

1. Remove the Top Case, Bottom Plate, Front Panel, Shield Plate and Cassette Compartment.
2. Place the post adjustment plate, put the dial gauge on it and set the dial gauge to zero "0" with the condition that scraper of gauge touches the cut-out portion of the plate.

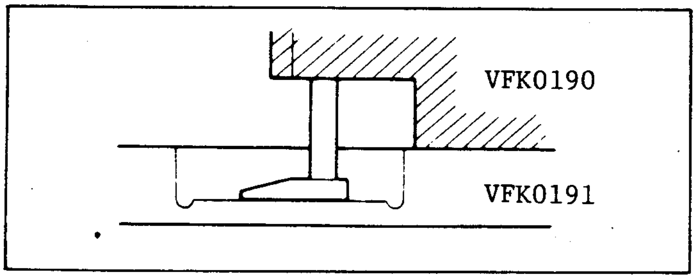


Fig. M25 Adjustment of Reel Table Height-(1)

3. Then measure the top portion of reel table and confirm the difference against the condition just performed in the former step. Also perform the same measurement and confirmation for other reel table.

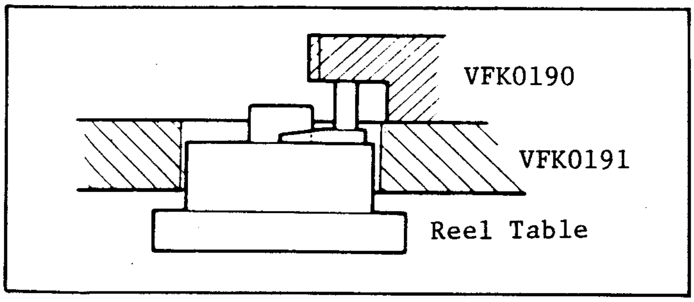


Fig. M26 Adjustment of Reel Table Height-(2)

4. If the difference is more than 0.1 mm (high or lower), adjust the height of reel table to obtain the specified height.
5. For the adjustment, change the polyslider washer located under the reel table. The washers of following thicknesses are available.

Washer / Thickness	Part No.
0.13mm	XWXV3Z6
0.25mm	XWXV3A6
0.5mm	XWXV3D6

Fig. M27

11. Height Adjustment of Tape Guide Post

* Equipment Required
Hex. Wrench, (0.9mm) .... (VFK0146)
Post Adjustment Plate ... (VFK0191)
Reel Table Height
Fixture .... (VFK0190)
Nut Driver .... (Purchase locally)
Post Adjustment
Screwdriver .... (VFK0137)

1. Remove the Top Case, Bottom Plate, Front Panel, Shield Plate and Cassette Compartment, and place the adjustment plate.

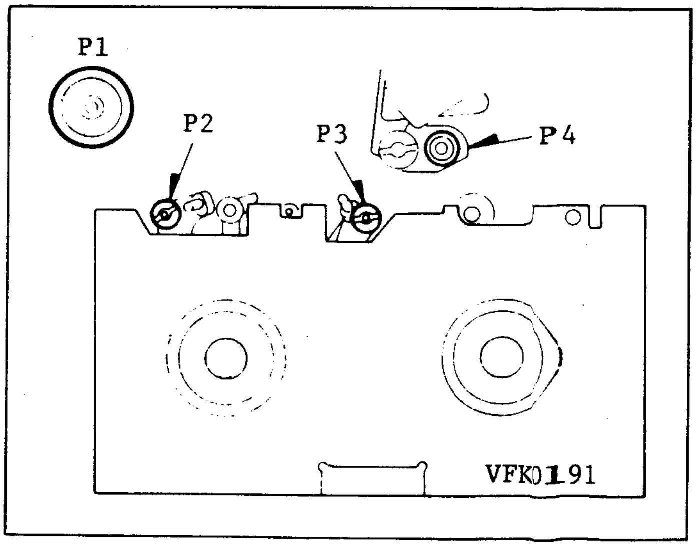


Fig. M28

2. First lower all posts so the condition of height becomes as shown. (Lower end of post, tape guide, should be lower than scraper.) Loosen a hex. screw located lower portion of posts (P2 & P3), then turn them.

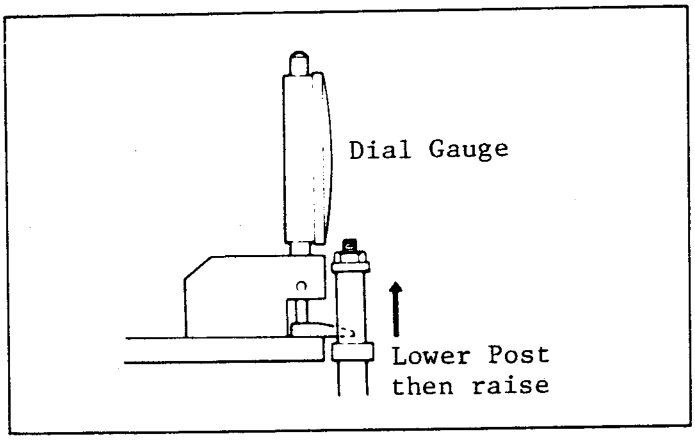


Fig. M29

3. Place the dial gauge on the adjustment plate and fit the scraper to the post. The condition to fit the scraper should be as shown. (The scraper of gauge should be fully lowered till it touches the plate).

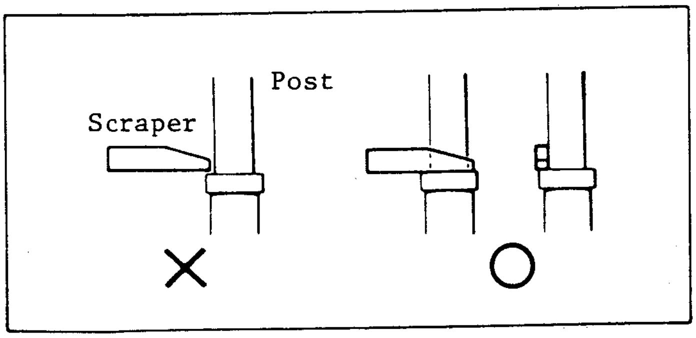


Fig. M30

4. Set the dial gauge to zero "0", and slowly raise the post until just the post is raised to touch the scraper. To adjust P1 and P4, use the nut driver. (The post cap on P4 can be removed by turning counterclockwise.) To adjust P2 and P3, use the post adjustment screwdriver.
5. After above the adjustment is completed, tighten hex. screws on the P2 and P3.

12. Height Adjustment of Pull Out Post

Notes:

1. The adjustment should be performed after the adjustment of P4 as the spec. is based on height of P4.
2. The adjustment should be performed in the loading completion mode.
3. Unless the replacement or adjustment of this post is required the adjustment nut should not be turned.

*Equipment Required

Post Adjustment Plate ..... (VFK0191)
Reel Table Height Fixture .... (VFK0190)
Nut Driver .... (Purchase Locally)

*Specification .... 0.01±0.01mm

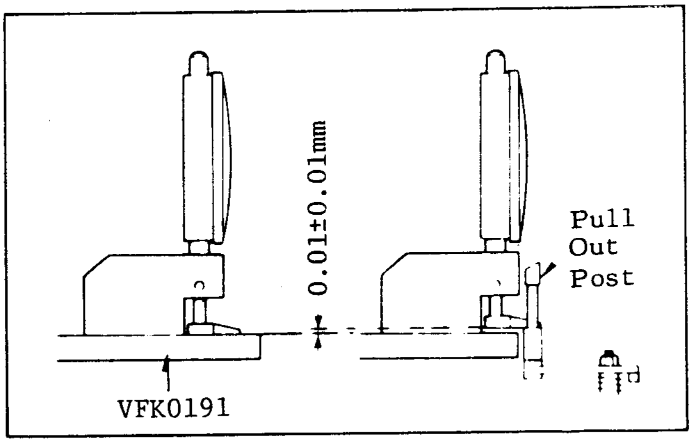


Fig. M31

1. Remove Top Case, Bottom Plate, Front Panel, Shield Plate and the Cassette Compartment with P1507 connector unit.
2. Turn power switch on, insert a cassette tape and push the PLAY button for loading.
3. As soon as loading is completed AC plug off.
4. Place the adjustment plate, put the height fixture on the plate and set dial gauge to zero "0" with condition the scraper touches on the plate.

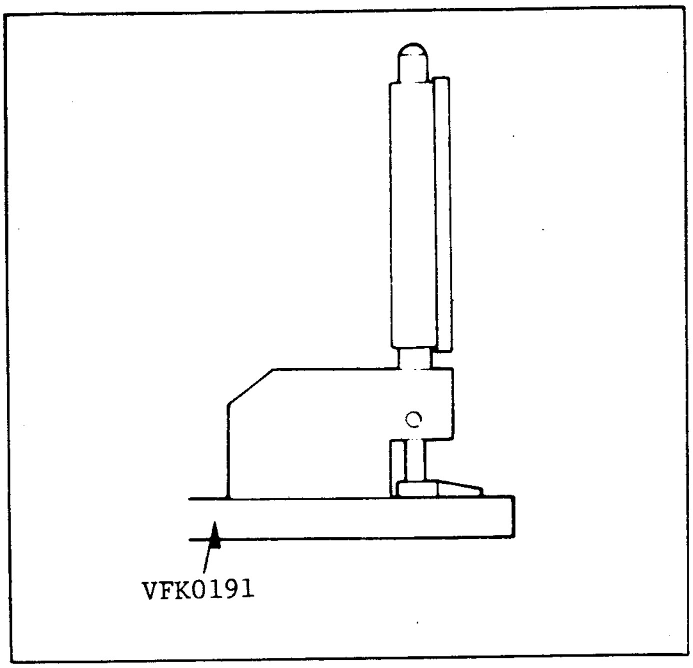


Fig. M32

5. First, slightly lower the post by turning the nut clockwise. Fit the scraper to the post so the condition becomes as shown.

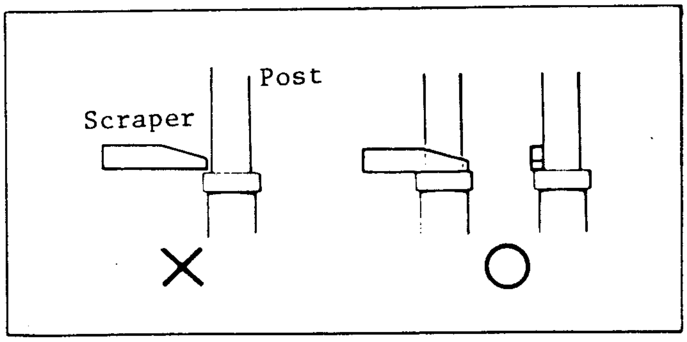


Fig. M33

6. Then slowly and slightly turn the nut till the gauge reads specified.
7. AC plug in for unloading before reinstall the cassette compartment.

13. Tape Interchangeability Adjustment

*Equipment Required
Alignment Tape ..... (VFM8100H3D)
Post Adjustment
Screwdriver .... (VFK0137)

1. Remove the Top Case, Bottom Plate, and the Shield Plate.
2. Set the tracking control into the detent (fixed) position.
   And connect the oscilloscope to the TP3503.

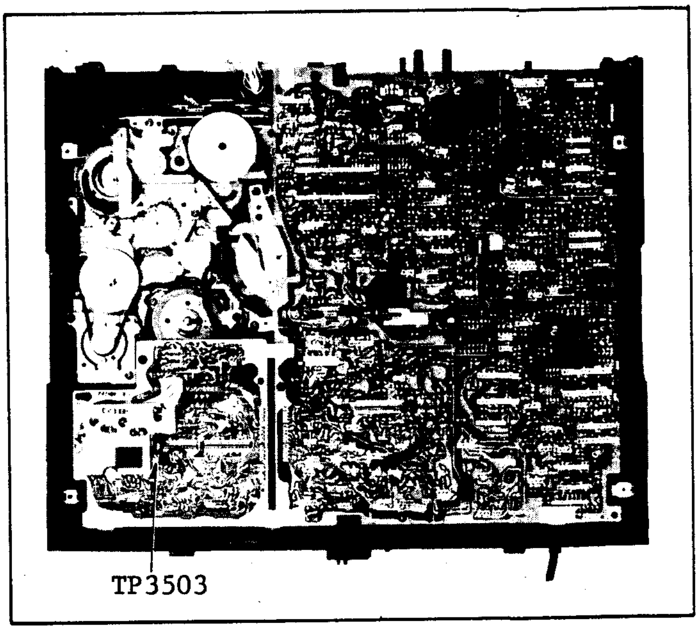


Fig. M34

3. Play back the alignment tape VFM8100H3D, adjust posts P2 and P3 by watching the scope display (Envelope of TP3503 on Head Amp & Luminance 2 P.C. Board) so the RF envelope on the scope becomes as flat as possible.
   ($V1/V\text{-max.} \geqq 0.7$, $V2/V\text{-max.} \geqq 0.8$)

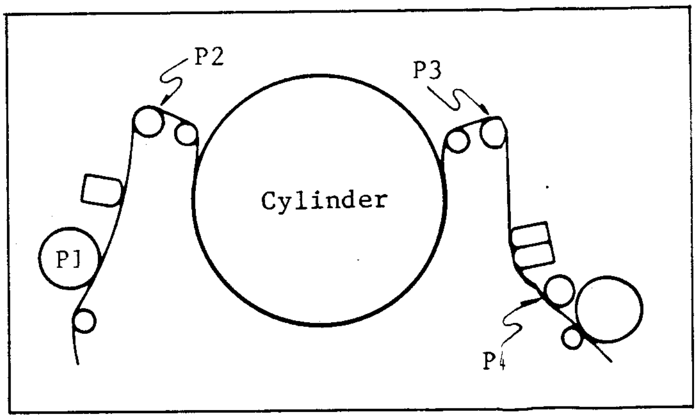


Fig. M35

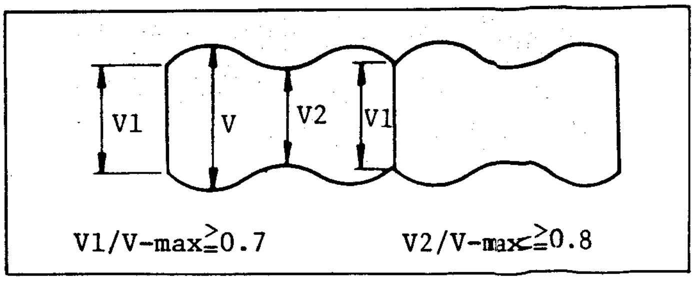


Fig. M36

4. When the scope display is as follows, adjust the height of P2 as shown below.

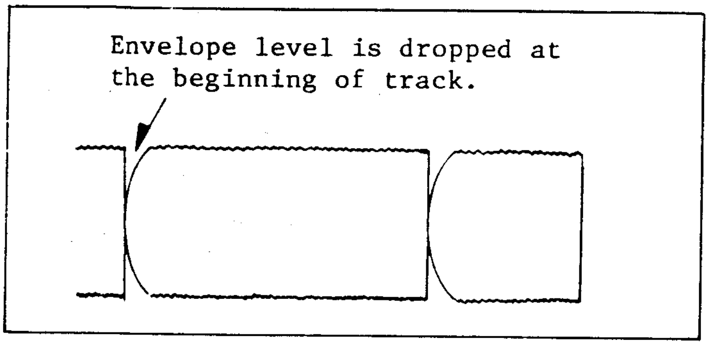

Envelope level is dropped at the beginning of track.

Fig. M37-(a)

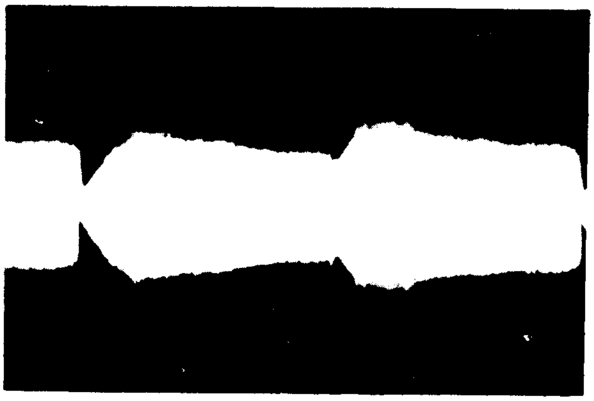


Fig. M37-(b)

5. When the scope display is as follows, adjust the height of P3 shown below.

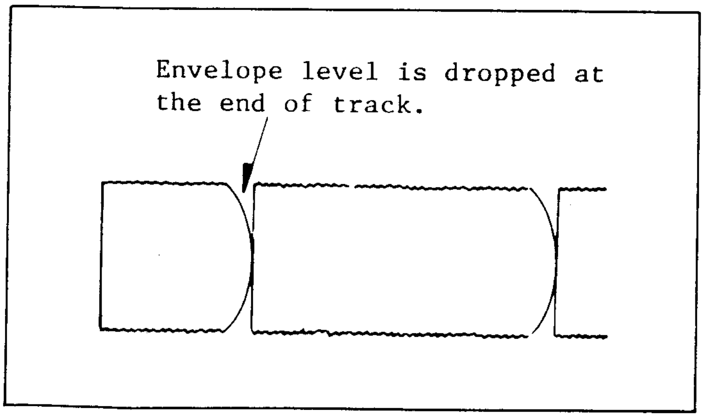

Envelope level is dropped at the end of track.

Fig. M38-(a)

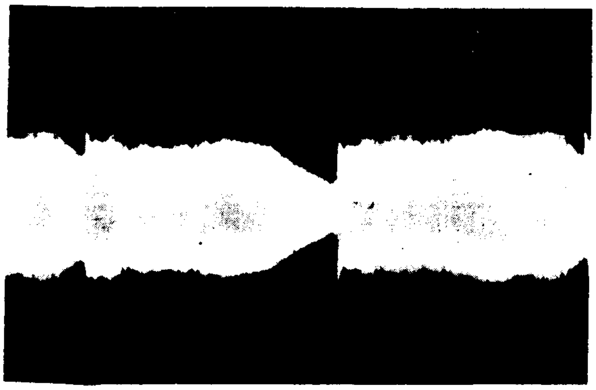


Fig. M38-(b)

6. The scope display with P2 and P3 adjusted correctly should become as shown below.

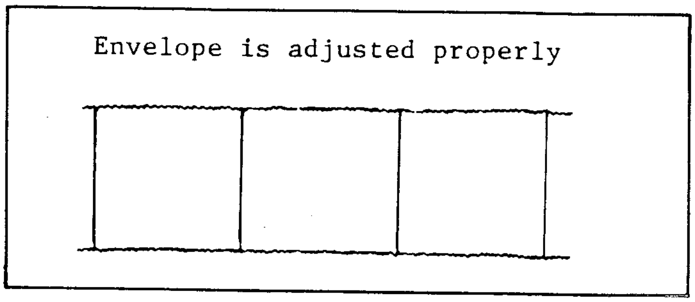

Envelope is adjusted properly

Fig. M39-(a)

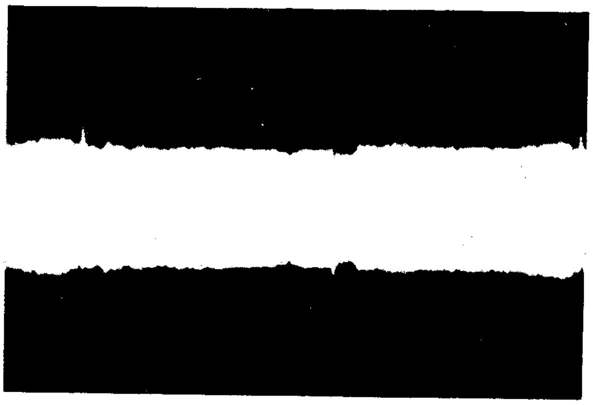


Fig. M39-(b)

7. When the adjustment is required, turn the top of post with the post adjustment screwdriver.

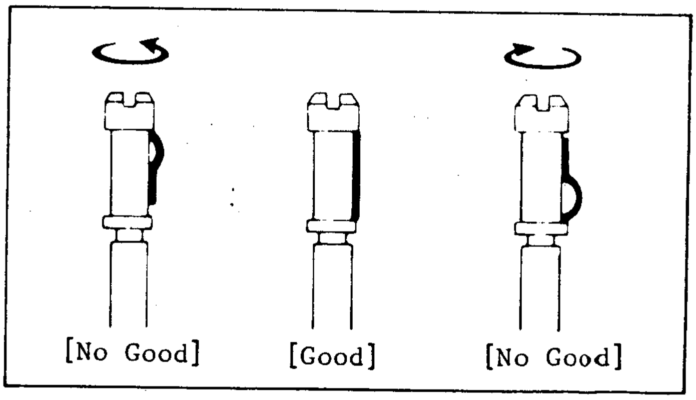

[No Good]
[Good]
[No Good]

Fig. M40

14. Adjustments and Confirmation of A/C Head

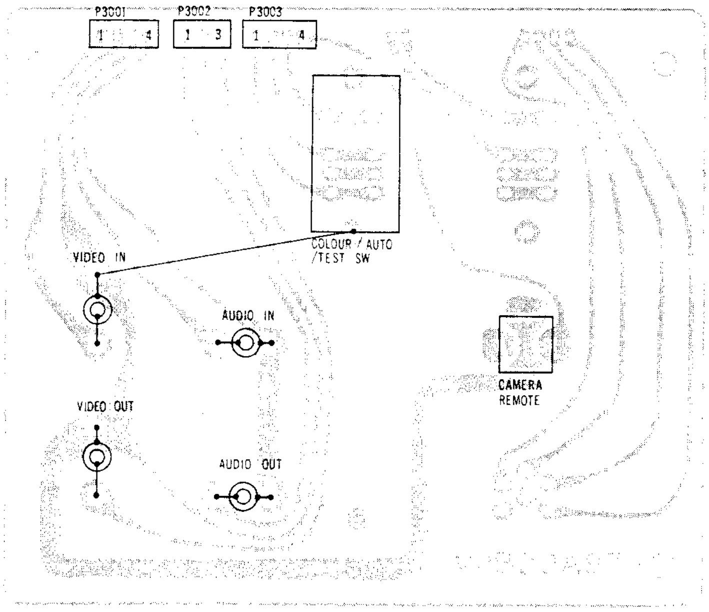
14-1. Horizontal Position Adjustment of A/C Head

*Equipment Required
H-Position Adjustment Screwdriver ..... (VFK0189)

1. Remove the Top Case and Bottom Plate.
2. Set the tracking control into the detent (fixed) position. And connect the oscilloscope to the TP3503.
3. Playback the alignment tape VFM8100H3D and confirm the envelope figure.

SMALL CIRCUIT BOARDS

REAR JACK P.C.BOARD


P3001
1
4
P3002
1
3
P3003
1
4
COLOUR / AUTO /TEST SW
VIDEO IN
AUDIO IN
CAMERA REMOTE
VIDEO OUT
AUDIO OUT

P3001 (TO MAIN)

1	VIDEO IN	BP3001 - 1
2	GND	BP3001 - 2
3	AUDIO IN	BP3001 - 3
4	GND	BP3001 - 4

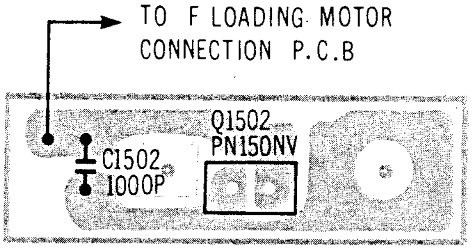
P3002 (TO MAIN)

1	AUDIO OUT	BP3002 - 1
2	GND	BP3002 - 2
3	VIDEO OUT	BP3002 - 3

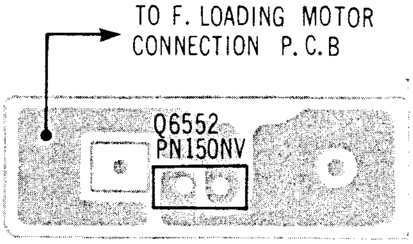
P3003 (TO MAIN)

1	TEST Ⓗ	BP3003 - 1
2	+12V	BP3003 - 2
3	COLOUR Ⓗ	BP3003 - 3
4	CAMERA PAUSE	BP3003 - 4

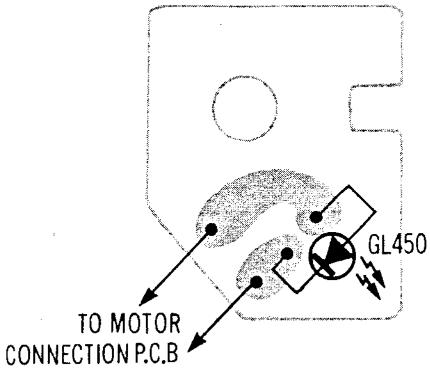
SUPPLY PHOTO Tr. P.C.BOARD (VJB00A94)


TO F LOADING MOTOR CONNECTION P.C.B
Q1502
PN150NV
C1502
1000P

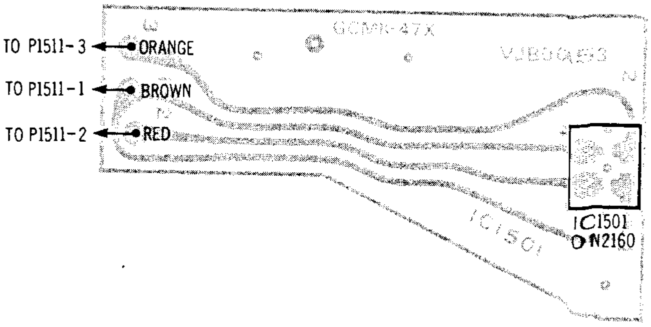
TAKEUP PHOTO Tr. P.C.BOARD (VJB00A56)


TO F. LOADING MOTOR CONNECTION P.C.B
Q6552
PN150NV

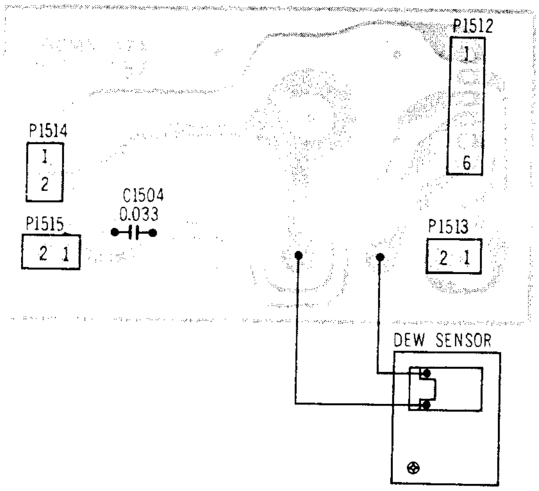
SENSOR LED P.C.BOARD (VJB00976)


GL450
TO MOTOR CONNECTION P.C.B

REEL SENSOR P.C.BOARD (VJB00A53)


TO P1511-3
ORANGE
TO P1511-1
BROWN
TO P1511-2
RED
IC1501
ON2160

LOADING MOTOR CONNECTION P.C.BOARD (VJB00A54)


P1512
1
6
P1514
1
2
C1504
0.033
P1515
2 1
P1513
2 1
DEW SENSOR

P1512

1	CAPSTAN FG	BP1512 - 1
2	LED GND	BP1512 - 2
3	LOADING Ⓜ (−)	BP1512 - 3
4	LOADING Ⓜ (+)	BP1512 - 4
5	SENSOR LED	BP1512 - 5
6	DEW SENSOR	BP1512 - 6

P1513 (TO SENSOR LED)

1	SENSOR LED
2	GND

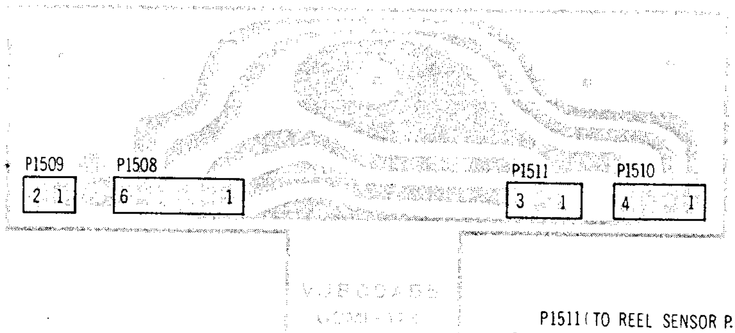
P1514 (TO CAPSTAN MOTOR)

1	CAPSTAN FG
2	FG GND

P1515 (TO LOADING MOTOR)

1	LOADING Ⓜ
2	LOADING Ⓜ

FRONT CONNECTION P.C.BOARD (VJB00A55)


P1509
2 1
P1508
6 1
P1511
3 1
P1510
4 1
VJB00A55

P1508

1	PHOTO CP +B	BP1508 - 6
2	REEL PULSE	BP1508 - 5
3	S3	BP1508 - 4
4	S2	BP1508 - 3
5	S1	BP1508 - 2
6	SAFETY TAB	BP1508 - 1

P1509 (TO SAFETY SW)

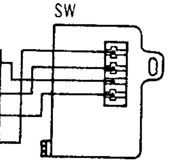
1	SAFETY TAB
2	———

P1511 (TO REEL SENSOR P.C.B)

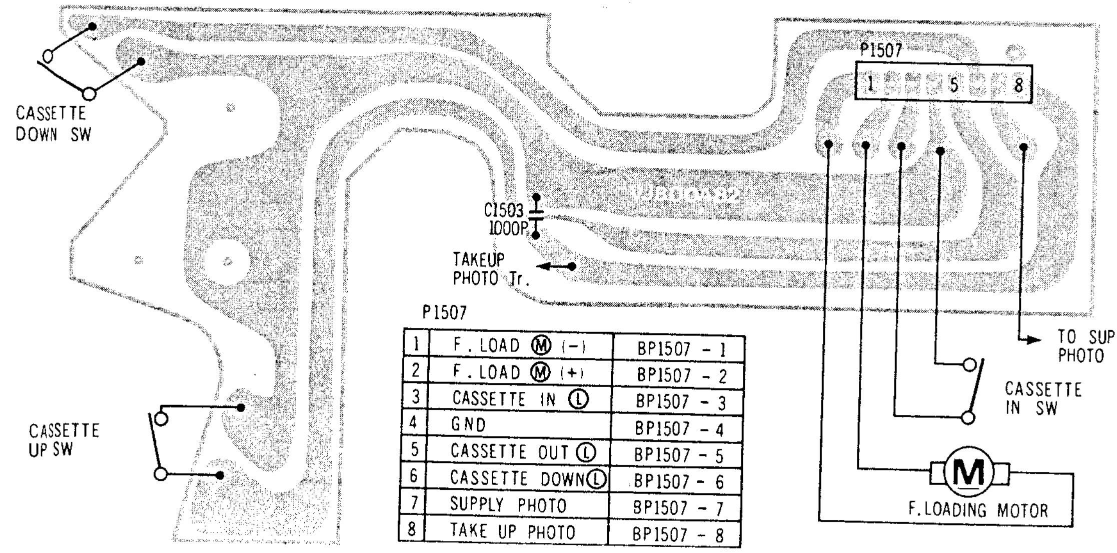
1	REEL PULSE
2	PHOTO CP +B
3	GND

P1510

1	S1
2	S2
3	S3
4	GND


MODE SELECT SW

F. LOADING MOTOR CONNECTION P.C.BOARD (VJB00A82)


CASSETTE DOWN SW
P1507
1 5 8
VJB00A82
C1503
1000P
TAKEUP PHOTO Tr.
TO SUPPLY PHOTO Tr.
CASSETTE IN SW
CASSETTE UP SW
M
F.LOADING MOTOR

P1507

1	F. LOAD Ⓜ (−)	BP1507 - 1
2	F. LOAD Ⓜ (+)	BP1507 - 2
3	CASSETTE IN Ⓛ	BP1507 - 3
4	GND	BP1507 - 4
5	CASSETTE OUT Ⓛ	BP1507 - 5
6	CASSETTE DOWN Ⓛ	BP1507 - 6
7	SUPPLY PHOTO	BP1507 - 7
8	TAKE UP PHOTO	BP1507 - 8

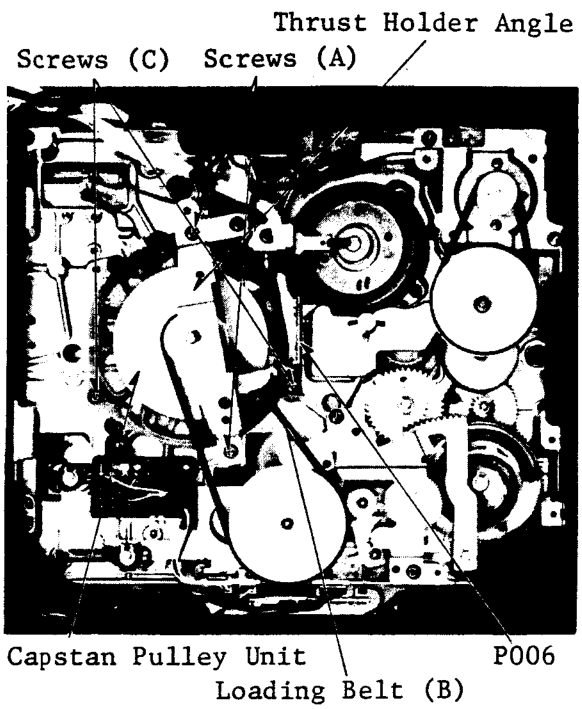

Thrust Holder Angle
Screws (C)
Screws (A)
Capstan Pulley Unit
P006
Loading Belt (B)

Fig. M49

2. Remove 2 screws (A) and thrust holder unit, then remove the loading belt (B) and the P006 connector.
3. Remove the capstan pulley unit and 2 screws (C), then remove the stator unit.

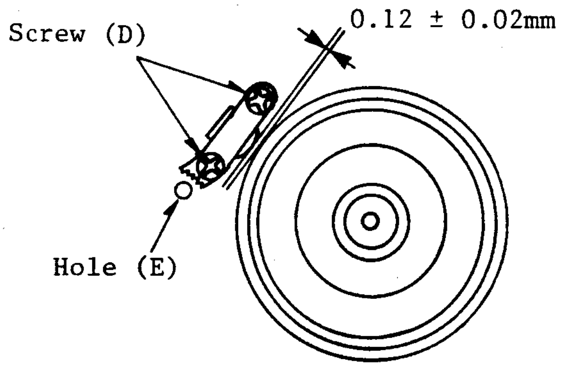

Screw (D)
0.12 ± 0.02mm
Hole (E)

Fig. M50. Adjustment of F.G. Head Gap

4. Slightly loosen the 2 screws (D) and set the fine adjustment screwdriver in the hole (E).

Note:

1. Instead of this method, the cover page of this volume can be alternative because the thickness is approx. 0.12mm.
2. Do not touch the circumferential surface of rotor with any tool, and keep any magnetizable material away from the rotor magnet.

3. When reinstalling the capstan pulley unit, fit the roter unit to boss of capstan pulley unit.

16. Adjustment of Thrust Gap

*Equipment Required
Reel Table Height Gauge
..... (VFK0190)
Washer (more than 1mm)
*Specification: 0.01 ∿ 0.10mm

1. Remove the Top Case, Bottom Plate, Front Panel, Shield Plate and Cassette Compartment, and place the deck upside down, then open the Operation P.C. Board Unit, Main P.C. Board Unit and Head Amp/Luminance 2 P.C. Board Unit. (Refer to P.C. Board Opening Method.)
2. Set the washer on the capstan pulley unit and place the height gauge on the thrust holder angle, and set the gauge to zero "0".
3. Next, push the capstan shaft by your finger.
4. If the gap is out of specification, then adjust the thrust boss by turning it clockwise or counterclockwise.

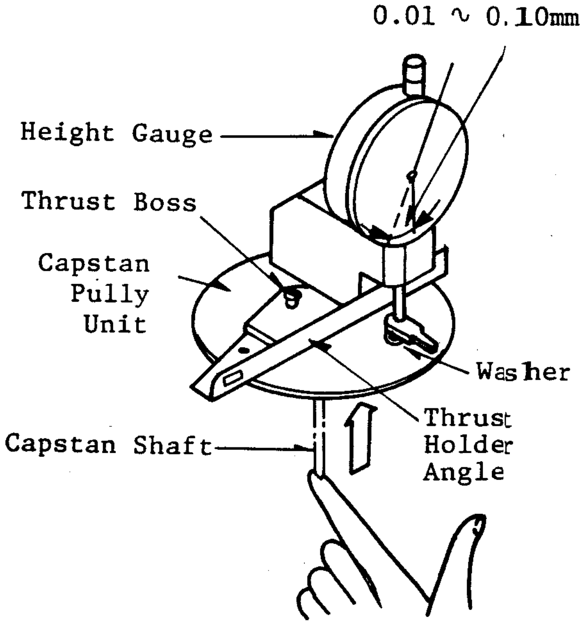

0.01 ∿ 0.10mm
Height Gauge
Thrust Boss
Capstan Pully Unit
Washer
Thrust Holder Angle
Capstan Shaft

Fig. M51. Confirmation/Adjustment of Thrust Gap-(1)

17. Adjustment of Cam Gear and Mode Select Switch

General Condition:

The mechanism of this model is mostly engaged to the electrical circuit, System Control Circuit, through the mode select switch. Therefore the relation between the mode switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If the adjustment of this item is performed improperly, the deck will be unloaded or compulsorily stopped. And it will result being damaged at any mechanical or electrical parts.

A. Adjustment Procedures of Cam Gear

1. Turn Loading gear clockwise until the P2 and P3 post were fully unloaded The small projection on the loading gear will be top portion under the condition of Unloading Completion.

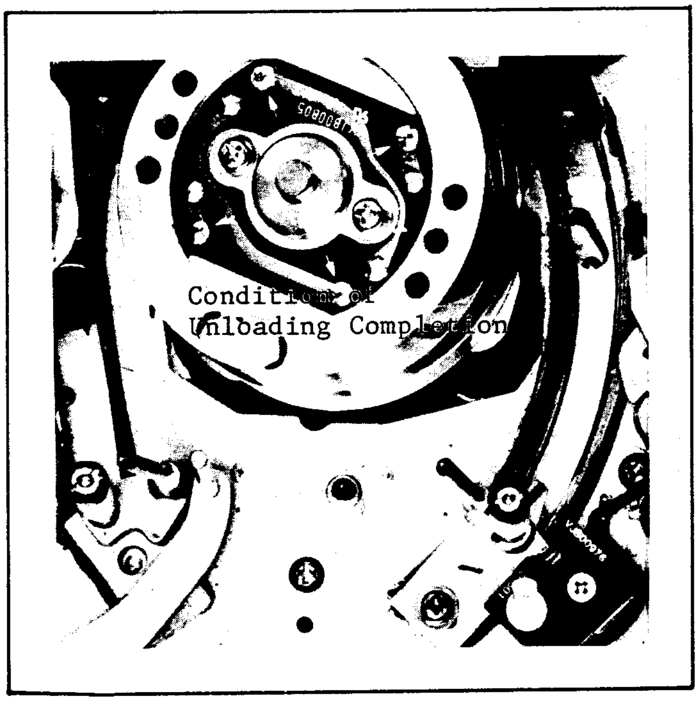


Fig. M52

2. Install the action gear so the hole on the action gear meets the projection on the loading gear. Ensure that the loading gear is still in the condition of the unloading completion.

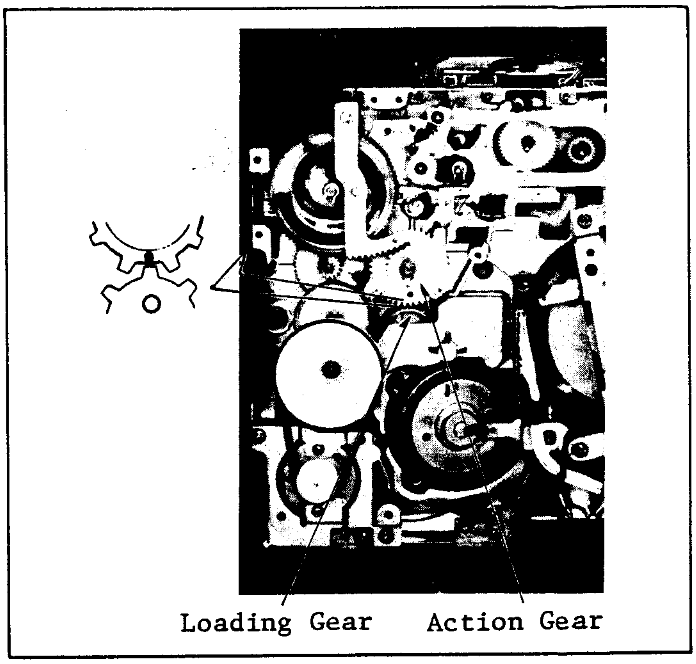


Fig. M53

3. Slowly slide the main rod so the V-shaped mark meet the V-shaped mark of the mode select switch. With the result, main rod and mode select switch are in a position to be stop (unloading completion) mode.
4. Insert the cam gear so the hole (A) on the gear meets the hole on the main rod. To meet the two holes easier, use the small hex. wrench (VFK75) or metal pin.
Also ensure the two V-shaped marks are fixed.

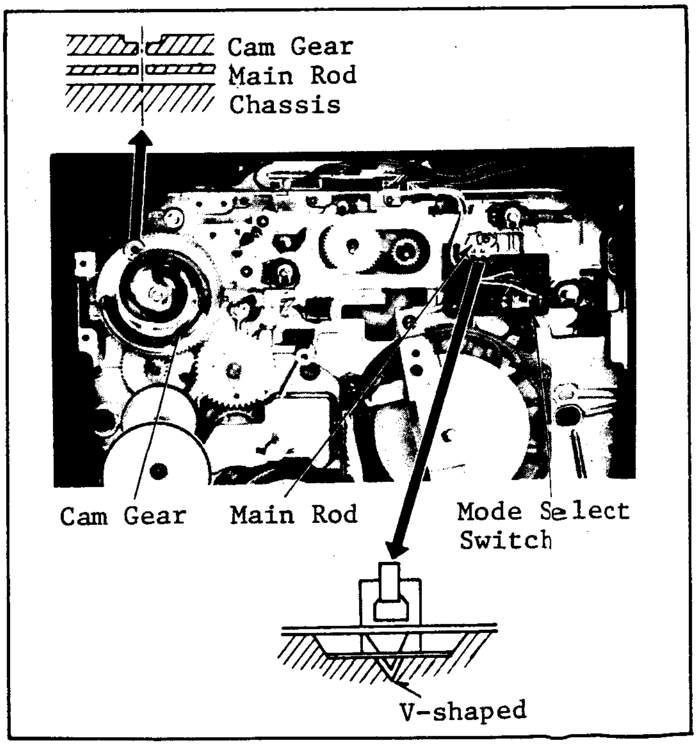


Fig. M54

5. Install the sector gear so the pin on the sector gear meets the inner slot of the cam gear (simple slot side). And install 2 retaining rings to mount cam gear and sector gear.
6. Final figure should become as shown below, and at the same time two V-shaped marks are fixed at the mode select switch.

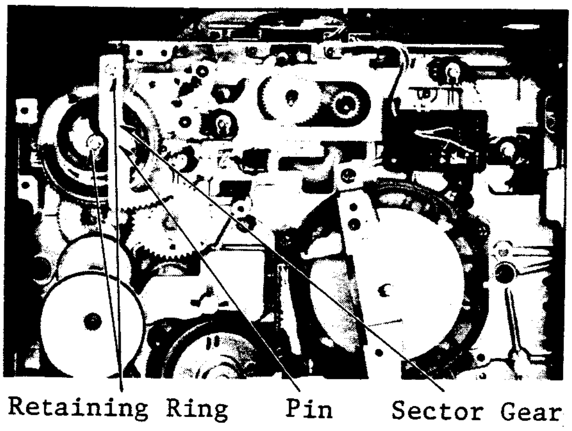


Fig. M55

7. Pull the arm lever unit to the counterclockwise,then install the kick base unit on the chassis and tighten 2 screws(A).
8. Pull the gear(B) to the clockwise,then install the clutch gear unit to the post.
   (Note: When,install the clutch gear unit,match the hexagonformaat the lower part.)
9. Install the intermediate gear(C) to the other post with match the slit on it and install the cut washer to mount it.
10. Install the clutch pulley on the clutch gear unit,then install the capstan belt.
11. Turn the clutch pulley in both direction to confirm the smoot-movement of this mechanism.

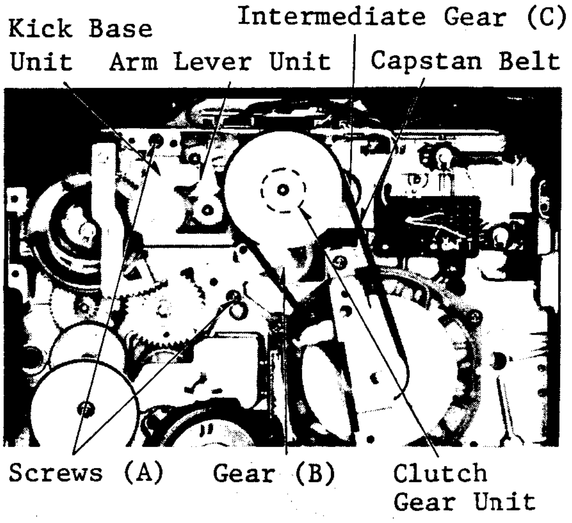


Fig. M56

B. Adjustment Procedure of Mode Select Switch

1. Fix the main rod in the condition of unloading completion.
2. Slightly loosen a screw (B).
3. Adjust the position of the mode select switch so that the two V-shaped marks of the mode select switch just correspond at the same position. Then tighten a screw (B).
4. Make sure that the movement of the unit is in normal condition.

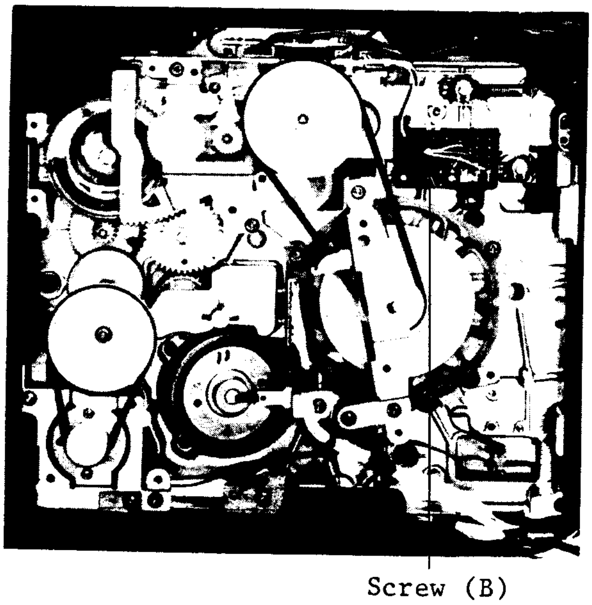


Fig. M57

18. Gear Assembling of Cassette Compartment

Note:

When the gears are assembled, apply the Morlytone grease to the positions marked with crosses.

1. Install the Shaft Gears to the Main Shaft and hold them with E type Rings.

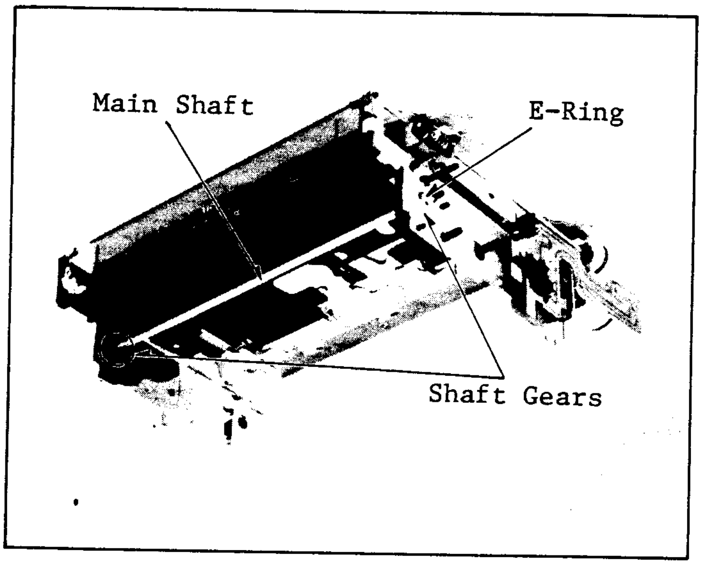

Main Shaft
E-Ring
Shaft Gears

Fig. M58

2. Assemble the Warm Wheel, Clutch Gear, Clutch Spacer and Clutch Spring.

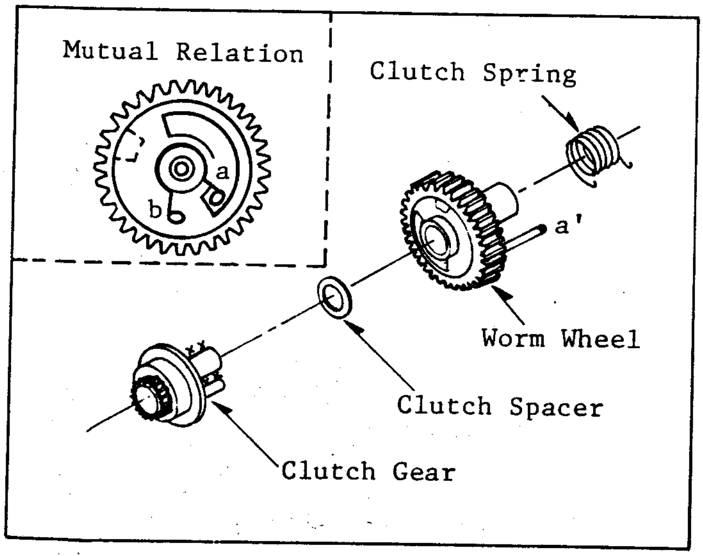

Mutual Relation
a
b
Clutch Spring
a'
Worm Wheel
Clutch Spacer
Clutch Gear

Fig. M59

3. Assemble the Wiper Arm, Wiper Gear (R) and Wiper Spring (R).

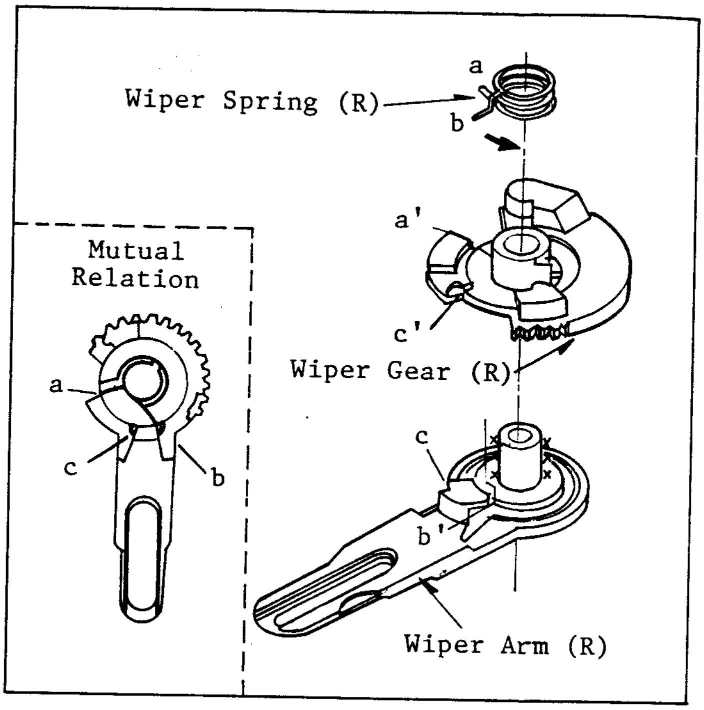

Wiper Spring (R)
a
b
Mutual Relation
a
c
b
a'
c'
Wiper Gear (R)
c
b'
Wiper Arm (R)

Fig. M60

4. Assemble the Wiper Arm, Wiper Gear (L) and Wiper Spring (L).

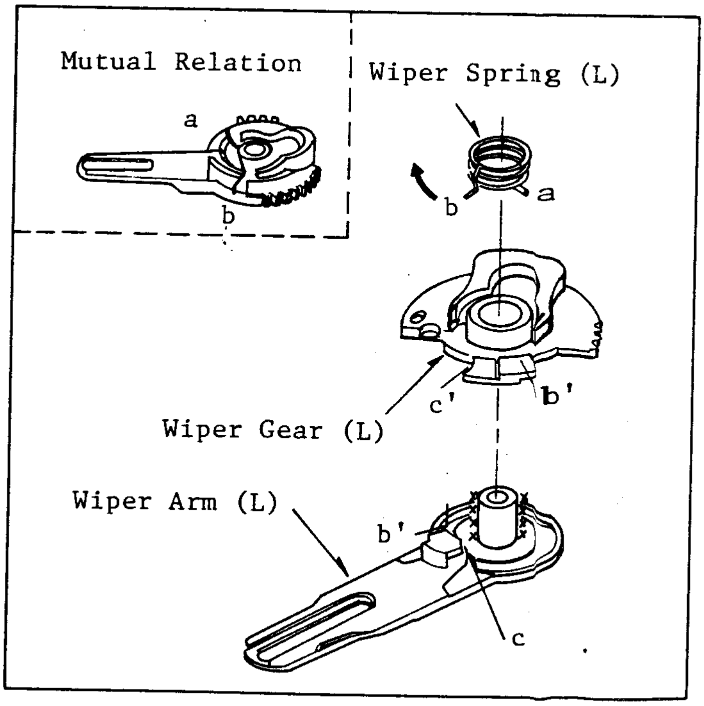

Mutual Relation
a
b
Wiper Spring (L)
b
a
c'
b'
Wiper Gear (L)
Wiper Arm (L)
b'
c

Fig. M61

5. Assemble the Gears on right side of Cassette Compartment.

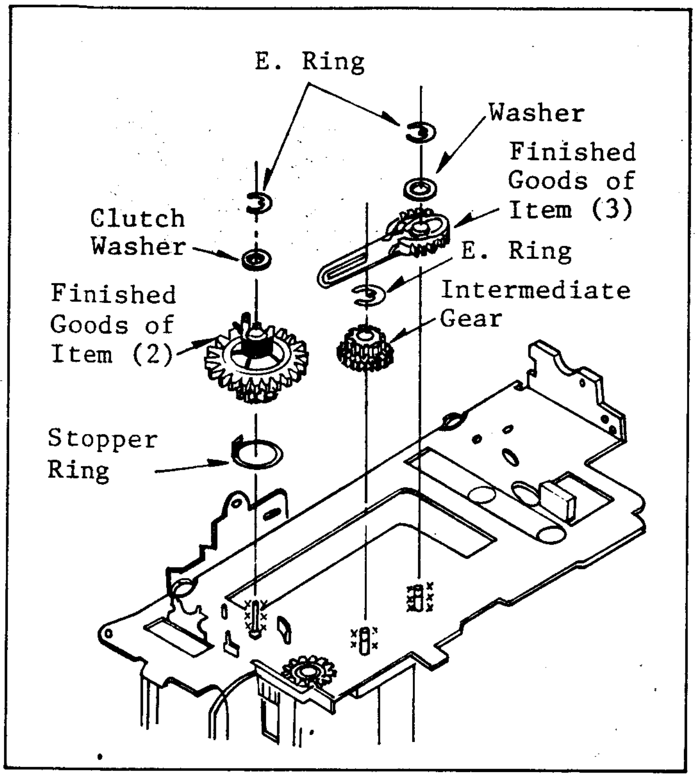

E. Ring
Washer
Finished Goods of Item (3)
Clutch Washer
E. Ring
Intermediate Gear
Finished Goods of Item (2)
Stopper Ring

Fig. M62

(Mutual Relation of Gears on Right Side)

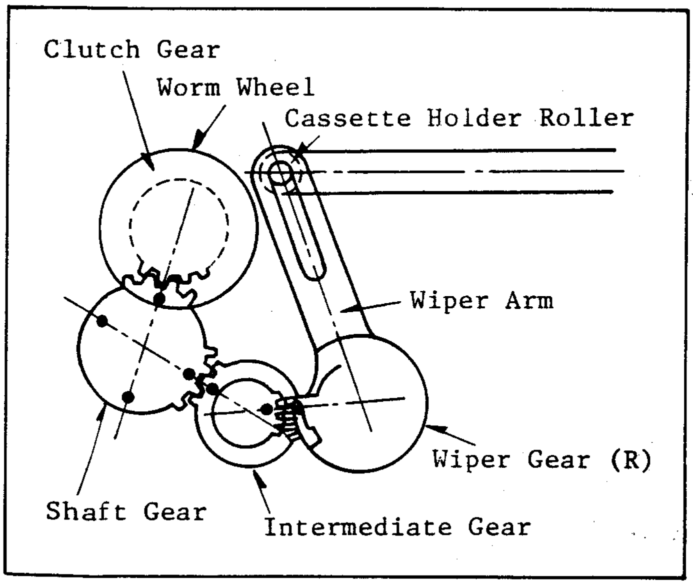

Clutch Gear
Worm Wheel
Cassette Holder Roller
Wiper Arm
Wiper Gear (R)
Shaft Gear
Intermediate Gear

Fig. M63

When assemble the Worm Wheel and the Clutch Gear in Fig. M63, assemble the Stopper Ring with the Clutch Gear so the convex portion of the Stopper Ring is related with the Block of the Worm Wheel as shown in Fig. M64.

(Phase between the Worm Wheel and the Stopper Ring)

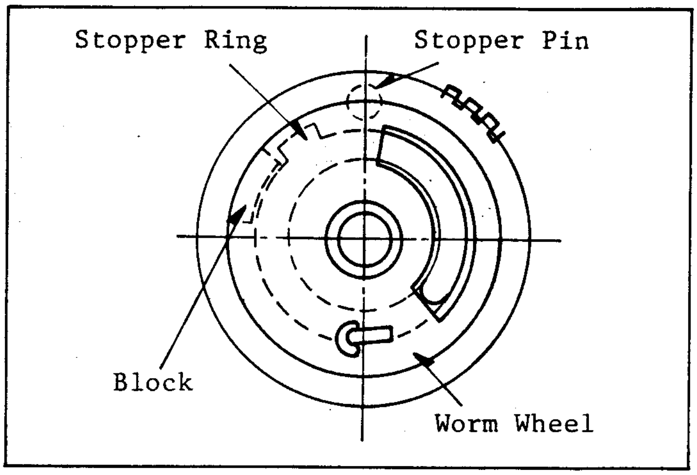

Stopper Ring
Stopper Pin
Block
Worm Wheel

Fig. M64

6. Assemble the Gears on left side of Cassette Compartment.

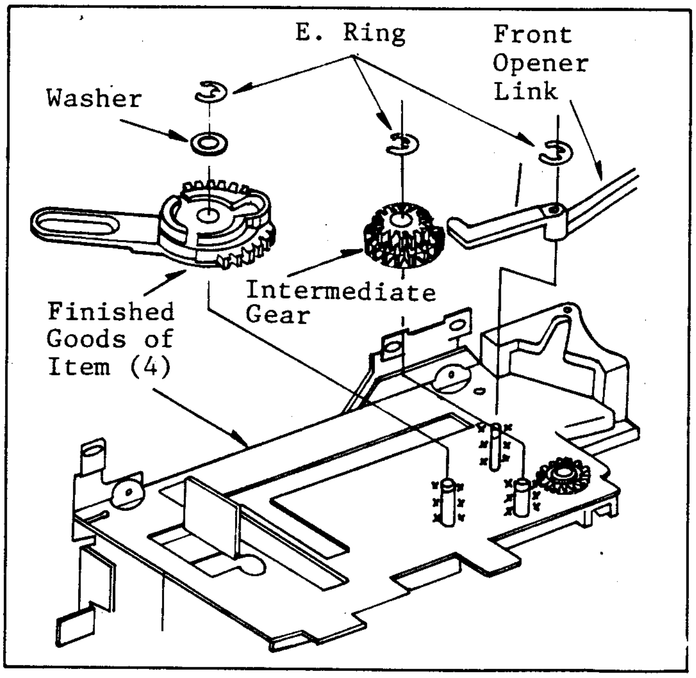

E. Ring
Front Opener Link
Washer
Finished Goods of Item (4)
Intermediate Gear

Fig. M65

(Mutual Relation of Gears on Left Side)

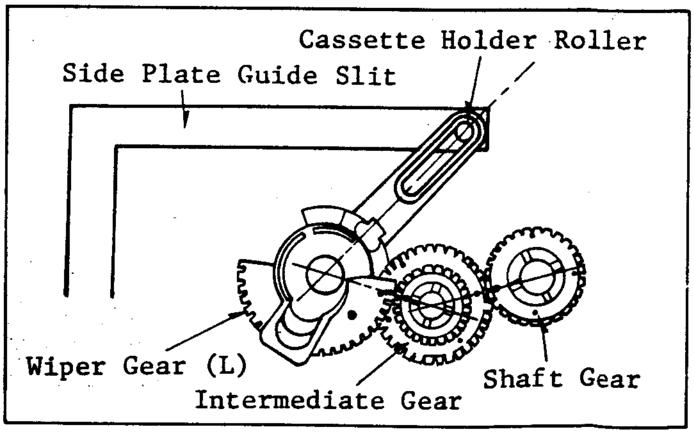
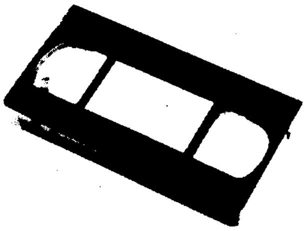

Cassette Holder Roller
Side Plate Guide Slit
Wiper Gear (L)
Intermediate Gear
Shaft Gear

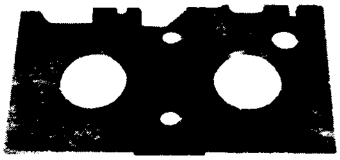
Fig. M66.

Servicing Fixtures & Tools

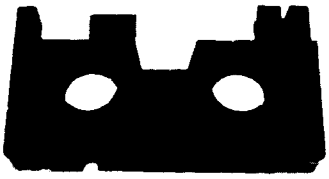
VFM8100H3D VHS Alignment Tape



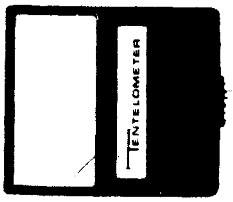
VFK0191 Post Adjustment Plate



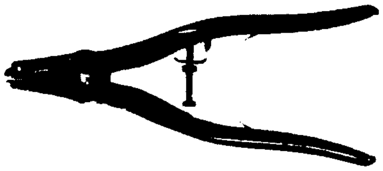
VFK0188 Cassette Holder Fixture



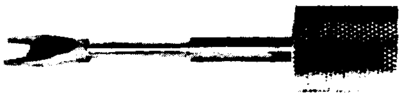
Back Tension Meter
(Tentelometer, Made in U.S.A.)



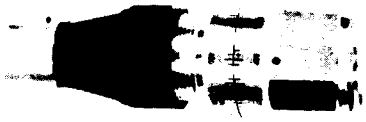
VFK0144 Retaining Ring Remover (3mm)
VFK0145 Retaining Ring Remover (4mm)



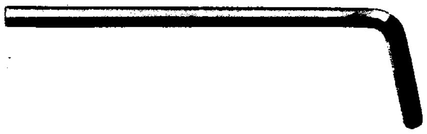
VFK0189 H-Position Adj. Fixture



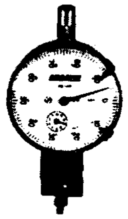
VFK0133 Dial Torque Gauge
VFK0134 Adaptor for VFK0133
VFK0180 (Plastic Clamper Only)



VFK0146 Hex. Wrench (0.9mm)
VFK75 Hex. Wrench (1.25mm)
VFK76 Hex. Wrench (1.5mm)

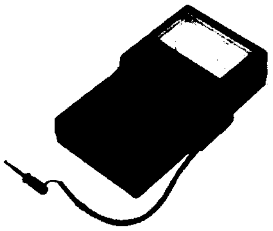


VFK0190 Reel Table Height Jig

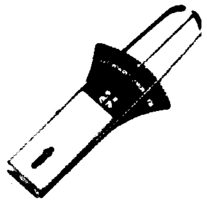


VFK0135 Eccentric Screwdriver

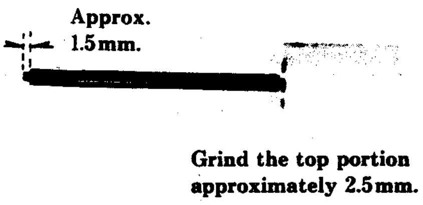
VFK0225 Head Tester



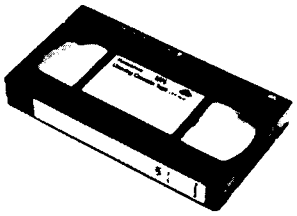
VFK66 Fan Type Tension Gauge



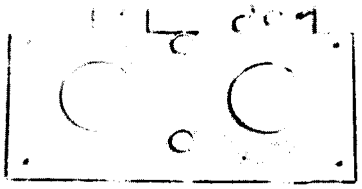
VFK0136 Fine Adjustment Screwdriver



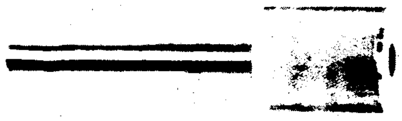
VFK0185 Cleaning Cassette Tape



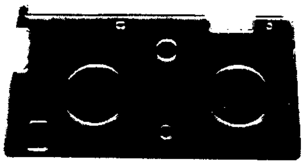
VFK0141 Capstan Reference Plate



VFK0137 Post Adjustment Screwdriver

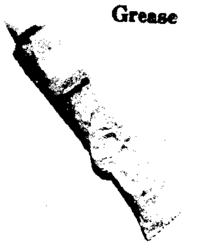


VFK0187 Tension Post Adj. Fixture



VFK27
Head Cleaning
Stick

MOR265 Morlytone
Grease



ELECTRICAL ADJUSTMENT PROCEDURES

This section provides complete electrical adjustment procedures which may be required for electronic circuits of VHS video cassette recorder.

1. Test Equipments

To perform the electrical adjustments completely, following equipment is required.

1. VTVM (Vacuum Tube Volt Meter) or DVM (Digital Volt Meter) Voltage Range: 0.001 - 50V
2. Dual-Trace Oscilloscope
   Voltage Range: 0.05 - 50V/div.
   Frequency Range: DC - 10MHz
   Probes: 10:1 or 1:1
3. Frequency Counter
   Frequency Range: 0 - 10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0 - 10MHz
5. Video Sweep Generator
   Frequency Range: 0 - 10MHz
6. Colour Receiver or Monitor TV
7. Plastic Tip Driver
8. VHS Alignment Tape (VFM8100H3D)

2. Adjustment Procedures

These adjustment procedures consist of the following sections.

1. Power Supply Section
2. Servo Section
3. Luminance, Chrominance & Head Amp Section
4. Audio Section
5. Operation Section
6. Timer &CH Preset Section (NV-370E)
7. Timer Section (NV-370EG/B)
8. TV Demodulator Section (NV-370E/EG)
9. TV Demodulator Section (NV-370B)

2-1. POWER SUPPLY SECTION

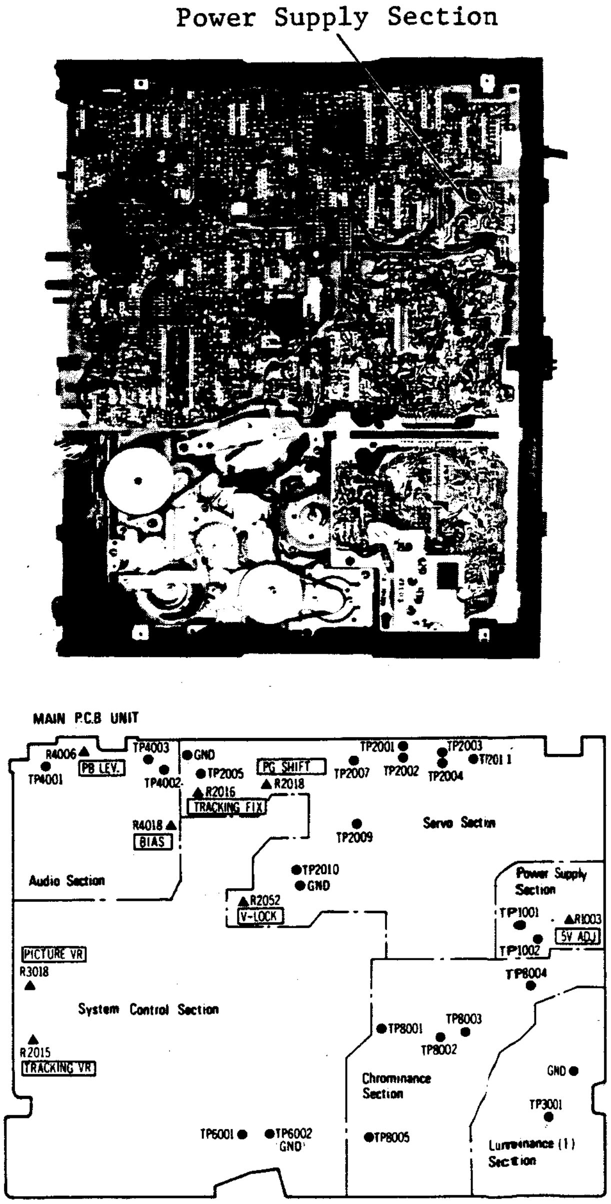

Power Supply Section
MAIN P.C.B UNIT
R4006
TP4001
PB LEV.
TP4003
TP4002
GND
TP2005
R2016
TRACKING FIX
PG SHIFT
R2018
TP2001
TP2007
TP2002
TP2003
TP2004
TP2011
R4018
BIAS
TP2009
Servo Section
Audio Section
TP2010
GND
R2052
V-LOCK
Power Supply Section
TP1001
R1003
5V ADJ
TP1002
PICTURE VR
R3018
TP8004
System Control Section
TP8001
TP8003
TP8002
R2015
TRACKING VR
Chrominance Section
GND
TP3001
TP6001
TP6002
GND
TP8005
Luminance (1) Section

Fig. E1 Power Supply Section

2-1-1. REG +5V Adjustment

Test Point: TP1001
Adjustment: R1003 (5V ADJ.)

1. Place the deck in STOP mode.
2. Connect the D.V.M. to TP1001 on the Power Supply Section of Main P.C. Board Unit.
3. Adjust R1003 on the same section so that the indication of the D.V.M. becomes 5.1 ± 0.1VDC.

2-1-2. Confirmation of REG +12V

Test Point: TP1002

1. Place the deck in STOP mode.
2. Connect the D.V.M. to TP1002 on the Power Supply Section of Main P.C. Board Unit.
3. Make sure that the indication of the D.V.M. is 12.6 ± 0.2VDC.

2-2. SERVO SECTION

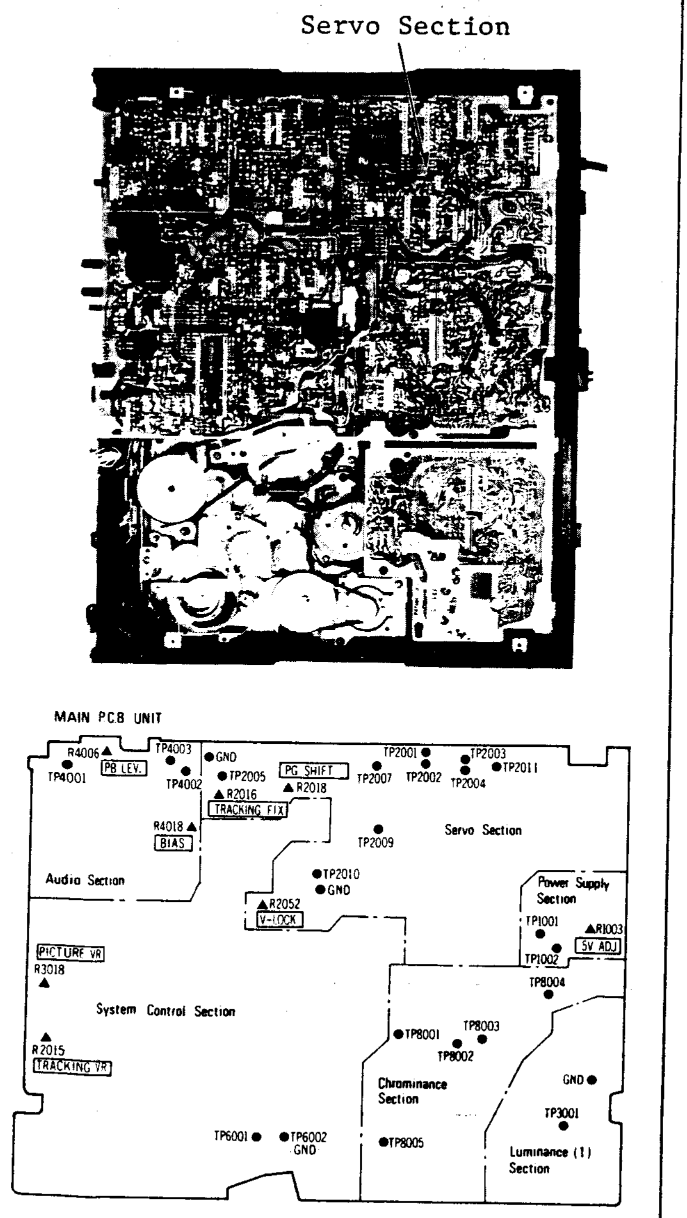

Servo Section
MAIN PCB UNIT
R4006
TP4001
PB LEV.
TP4003
TP4002
GND
TP2005
PG SHIFT
R2018
R2016
TRACKING FIX
TP2001
TP2007
TP2002
TP2003
TP2004
TP2011
R4018
BIAS
TP2009
Servo Section
Audio Section
TP2010
GND
R2052
V-LOCK
Power Supply Section
TP1001
R1003
TP1002
5V ADJ
PICTURE VR
R3018
System Control Section
TP8004
TP8001
TP8003
TP8002
R2015
TRACKING VR
Chrominance Section
GND
TP3001
TP6001
TP6002
GND
TP8005
Luminance (1) Section

Fig. E2 Servo Section

2-2-1. PG Shifter Adjustment

Test Points: TP2007 (H SW Pulse)
TP3001
Adjustment: R2018 (PG Shift)

1. Playback the alignment tape (VFM8100H3D)
2. Connect the scope CH1 to TP2007 on the Servo section of Main P.C. Board Unit and CH2 to TP3001 on the Luminance 1 Section of it.
3. Set the scope to the Delay mode, and expand the V-Sync portion.
4. Adjust R2018 on the Servo section so that the failling edge of switching pulse is 6.5 ± 0.5H before the beginning of the V-Sync as shown below.

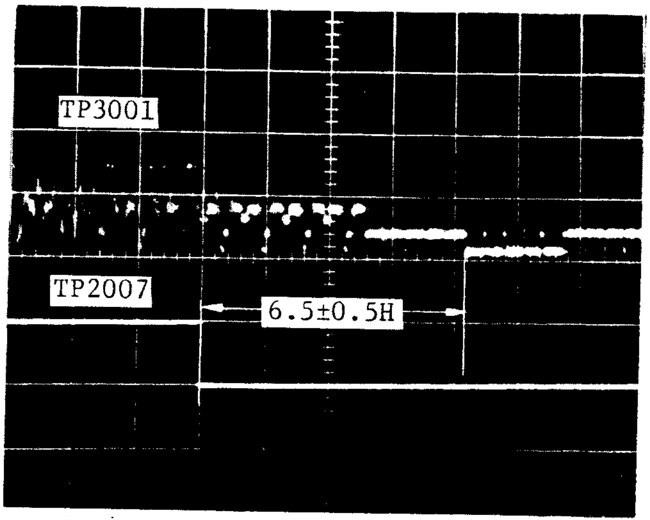


Fig. E3 TP3001 2V/0.1msec. div.
TP2007 5V/0.1msec. div.

2-2-2. Tracking Fix Adjustment

Test Points: TP2007 (H SW Pulse)
TP2009
Adjustment: R2016 (TRACKING FIX)

1. Set the TRACKING VR on the front panel to the center fix point.
2. Supply a video signal to the VIDEO INPUT on the rear panel or tune in a local on-air TV program, and make a recording for a few minutes.
3. Connect the scope CH1 to TP2007 and CH2 to TP2009 both on the servo section of the Main P.C. Board Unit, and Playback the just recorded portion.
4. Adjust R2016 on the same section so that the period "T" becomes 0.4 ± 0.4msec as shown below.

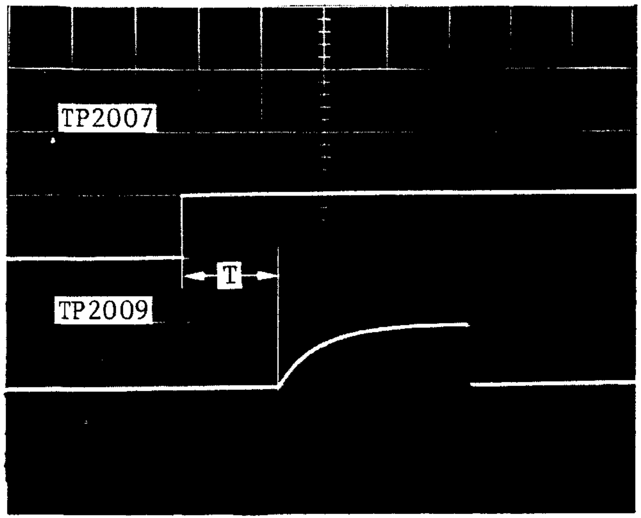


Fig. E4 TP2007 5V/0.2msec. div.
TP2009 5V/0.2msec. div.

2-2-3. Phase adjustment of Artifical V-Sync Pulse

Test Points: TP2007 (H SW Pulse)
TP2010
Adjustment: R2052 (V-LOCK)

1. Supply a video signal to the VIDEO INPUT on the rear panel or tune in a local on-air TV program, and make a recording for a few minutes.
2. Connect the scope CH1 to TP2007 and CH2 to TP2010 both on the Servo Section of Main P.C. Board Unit.
3. Set the scope to the Delay mode, and expand the V-Sync portion.
4. Adjust R2052 on the same section so that the period "T" becomes 144 ± 25µsec as shown below.

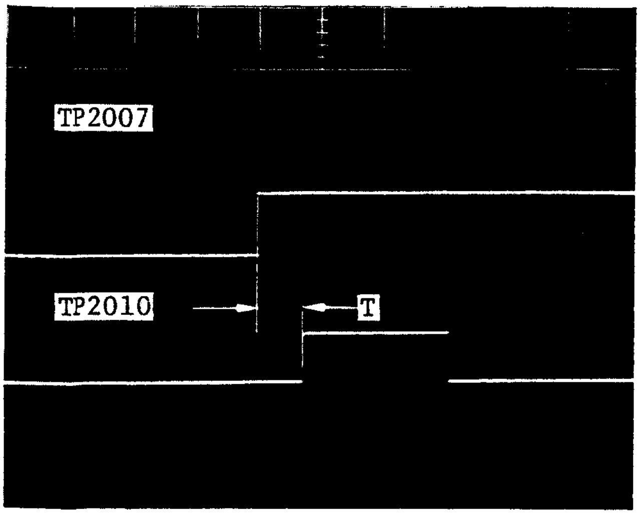


Fig. E5 TP2007 5V/0.2msec. div.
TP2010 5V/0.2msec. div.

2-3. LUMINANCE, CHROMINANCE & HEAD AMP SECTION

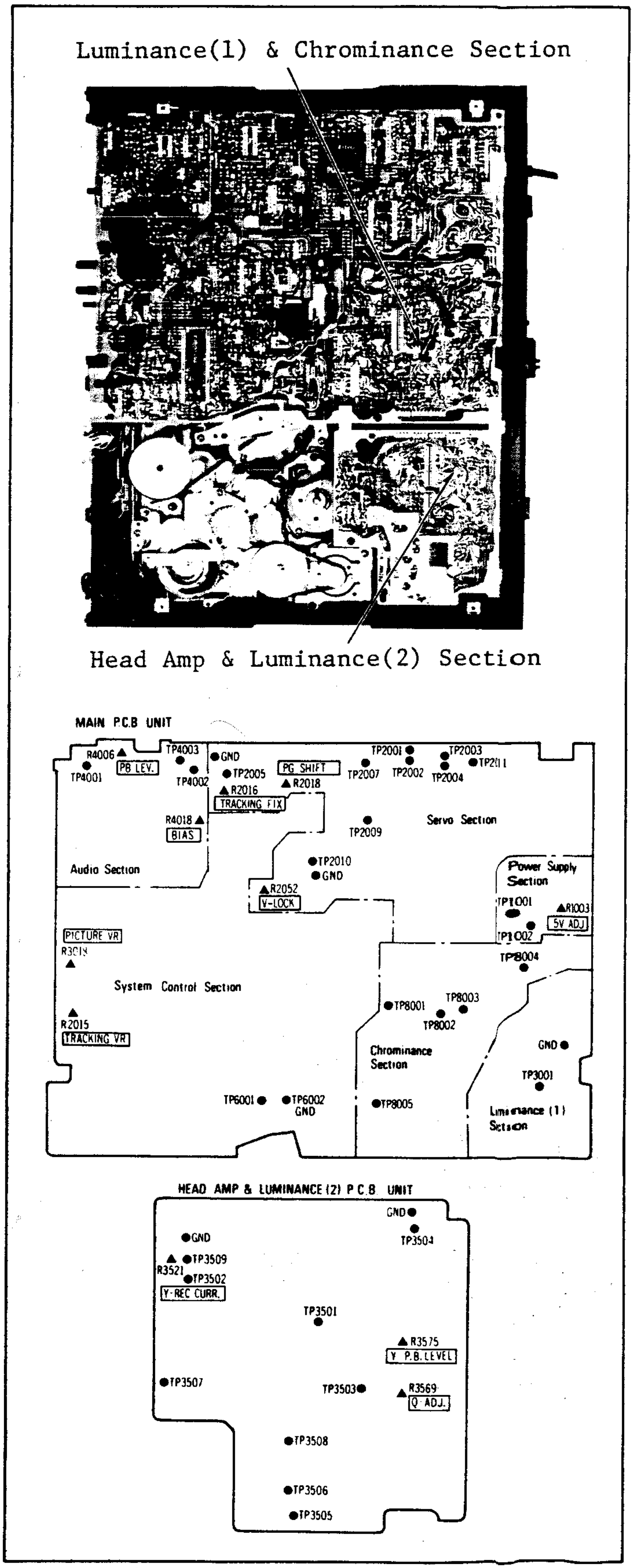

Luminance(1) & Chrominance Section
Head Amp & Luminance(2) Section
MAIN P.C.B UNIT
R4006
TP4001
PB LEV.
TP4003
TP4002
GND
TP2005
R2016
TRACKING FIX
PG SHIFT
R2018
TP2001
TP2007
TP2002
TP2003
TP2004
TP2011
R4018
BIAS
TP2009
Servo Section
Audio Section
TP2010
GND
R2052
V-LOCK
Power Supply Section
TP1001
R1003
5V ADJ
TP1002
PICTURE VR
R3018
TP8004
System Control Section
TP8001
TP8003
TP8002
R2015
TRACKING VR
Chrominance Section
GND
TP3001
TP6001
TP6002
GND
TP8005
Luminance (1) Section
HEAD AMP & LUMINANCE (2) P.C.B UNIT
GND
TP3504
GND
TP3509
R3521
TP3502
Y-REC CURR.
TP3501
R3575
Y P.B.LEVEL
TP3507
TP3503
R3569
Q ADJ.
TP3508
TP3506
TP3505

Fig. E6 Luminance(1), Chrominance & Head Amp/Luminance(2) Section

2-3-1. Video Rec. Current Adjustment

Test Points: TP3506 (HOT)
TP3505 (GND)
Adjustment: R3521 (Y-REC CURR.)

1. Supply a colour bar signal to the VIDEO INPUT on the rear panel, and Place the Unit in REC.PLAY mode.
2. Connect the scope to TP3506 (HOT) and TP3505 (GND) both on the Head Amp & Luminance 2 P.C. Board Unit.
3. Adjust R3521 on the same board so that the luminance level becomes 150 ± 5mVp-p as shown below.

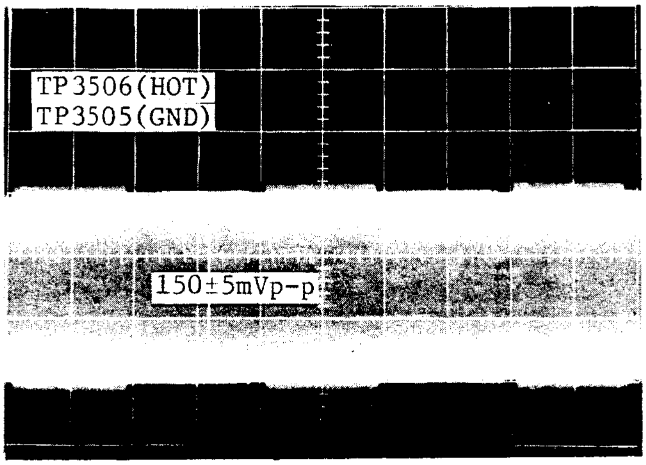


Fig. E7 50mV/5msec. div.

4. Connect a jumper wire between TP3509 and GND on the same board.
5. Make sure that the chrominance level is 26∿32mV as shown below.

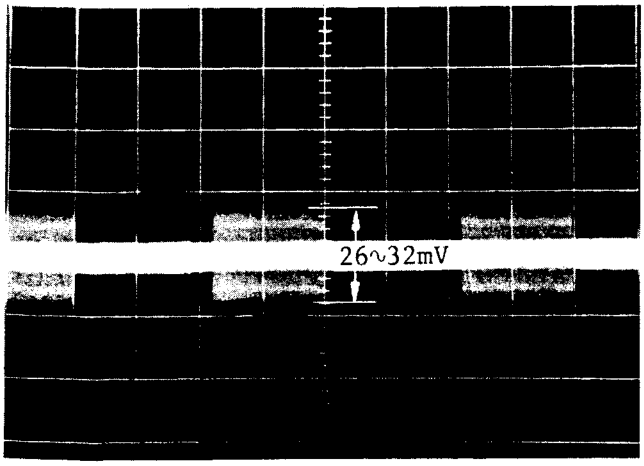


Fig. E8 20mV/5msec. div.

2-3-2. Head Amp Frequency Response Adjustment

Test Point: TP3001
Adjustment: R3569 (Q-ADJ.)

1. Set the sweep generator output is shown below.
   (Amplitude value of this waveform is terminated with 75Ω.)

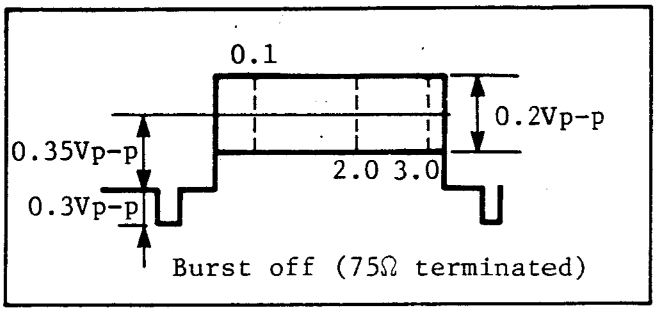


Fig. E9-(a).

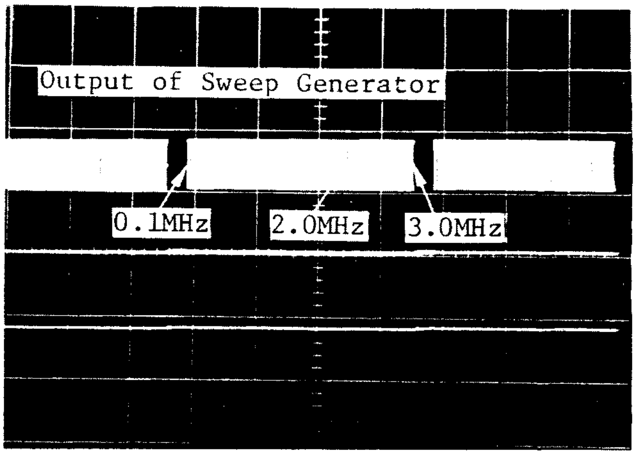


Fig. E9-(b)

2. Set the Picture VR on the front panel to center fix point.
3. Supply above set signal to the VIDEO INPUT on the rear panel and make a recording for a few minutes.
4. Connect the scope to TP3001 on the Luminance 1 section of Main P.C. Board Unit, and playback the just recorded portions.
5. Adjust R3569 on the Head Amp & Luminance 2 P.C. Board Unit, so that the waveform becomes as shown below.

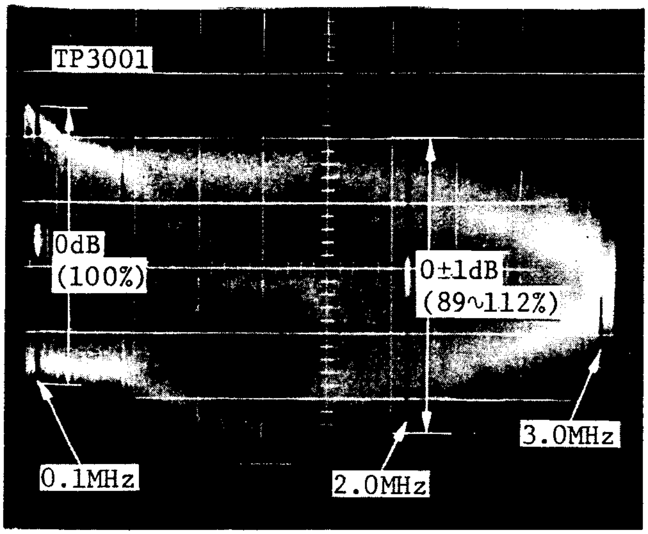


Fig. E10 0.1V/2msec. div.

2-3-3. Video Playback Level Adjustment

Test Point: TP3001
Adjustment: R3575 (Y-P.B. LEVEL)

1. Supply a colour bar signal to the VIDEO INPUT on the rear panel, and make a recording for a few minute.
2. Connect the scope to TP3001 on the Luminance 1 section of Main P.C. Board Unit, and playback the just recorded portions.
3. Adjust R3575 on the Head Amp & Luminance 2 P.C. Board Unit so that the Y-Level becomes 2.0 ± 0.1Vp-p, and make sure that the cyan level is 1.1 ± 0.15Vp-p.

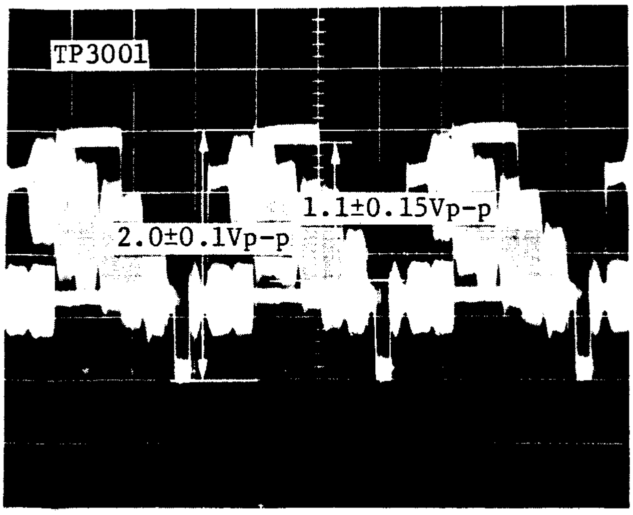


Fig. E11 0.5V/20μsec. div.

2-3-4. SECAM Killer Adjustment

Model No.: NV-370EG only
Test Point: TP8005
Adjustment: L8009 (SECAM KILLER)

1. Supply a SECAM colour bar signal to the VIDEO INPUT on the rear panel, and place the deck in REC.PLAY mode.
2. Connect the scope to TP8005 on the Chrominance Section.
3. Adjust L8009 on the same section so that the point "A" is the lower peak on the waveform as shown below.

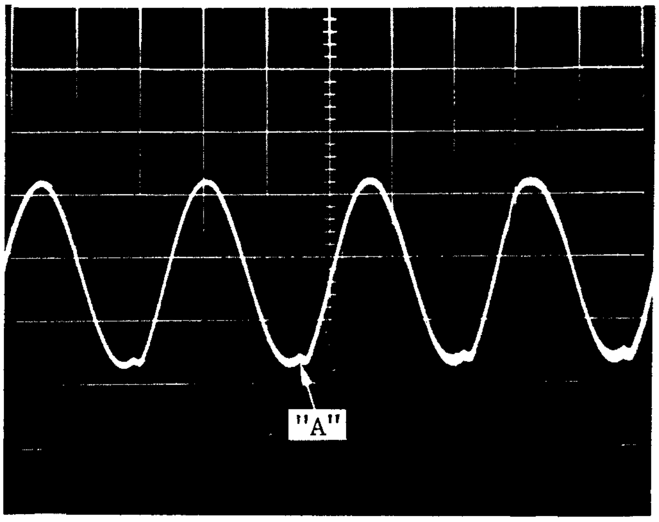


Fig. E12 2V/50μsec. div.

2-4. AUDIO SECTION

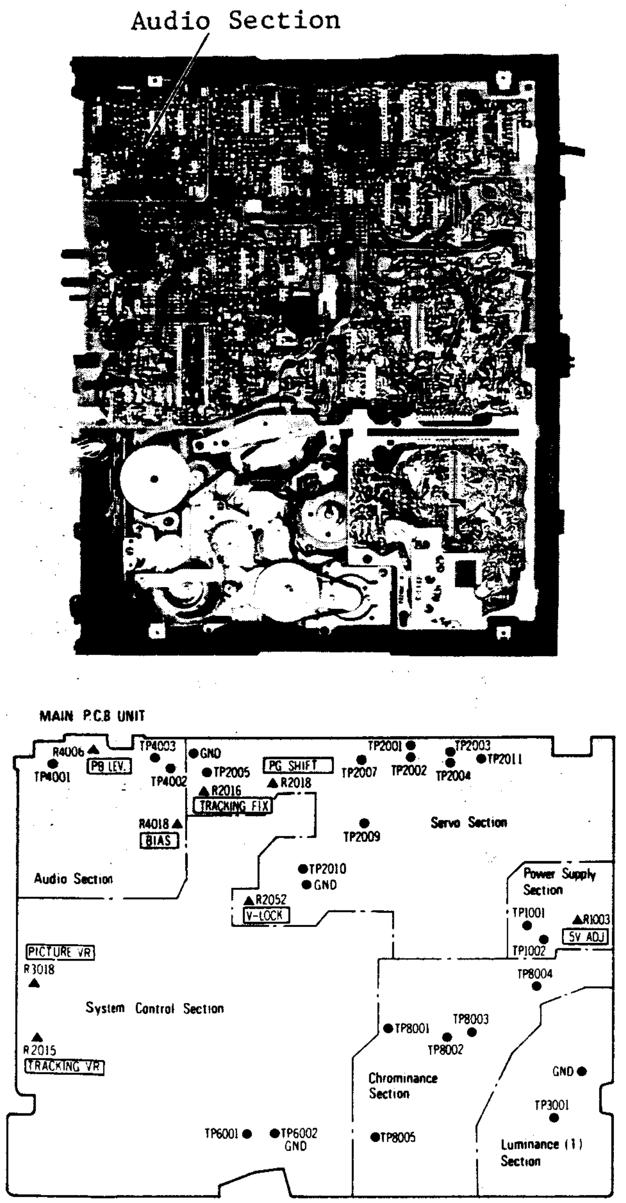

Audio Section
MAIN P.C.B UNIT
R4006
PB LEV.
TP4001
TP4003
TP4002
GND
TP2005
R2016
TRACKING FIX
PG SHIFT
R2018
TP2001
TP2007
TP2002
TP2003
TP2004
TP2011
R4018
BIAS
TP2009
Servo Section
Audio Section
TP2010
GND
R2052
V-LOCK
Power Supply Section
TP1001
R1003
5V ADJ
TP1002
PICTURE VR
R3018
TP8004
System Control Section
TP8001
TP8003
TP8002
R2015
TRACKING VR
GND
Chrominance Section
TP3001
TP6001
TP6002 GND
TP8005
Luminance (1) Section

Fig. E13 Audio Section

2-4-1. Audio Bias Corrent Adjustment

Test Points: TP4002 (HOT)
TP4003 (GND)
Adjustment: R4018 (BIAS)

1. Do not supply any audio signal to the AUDIO INPUT on the rear panel, and place the deck in REC.PLAY mode.
2. Connect the D.V.M. to TP4002 (HOT) and TP4003 (GND) both on the Audio section of Main P.C. Board Unit.
3. Adjust R4018 on the same section so that the indication of the D.V.M. becomes 4.6 ± 0.1mVrms.

2-4-2. Audio Playback Level Adjustment

Test Point: AUDIO OUT
Adjustment: R4006 (P.B. LEBEL)

Note:

Making this adjustment, "Tape Interchangeability Adjustment" and "Audio Bias Current Adjustment" must be completed.

1. Supply the sinewave signal (1kHz, -10dB) to the AUDIO INPUT on the rear panel. (-10dB = 316mVrms = 894mVp-p)
2. Connect the scope to AUDIO OUT on the rear panel.
3. Make a recording for a few minutes, and playback the just recorded portions.
4. Adjust R4006 on the same section so that the level of the playback waveform becomes E-E level ± 140mVp-p. (140mVp-p ≒ 50mVrms)

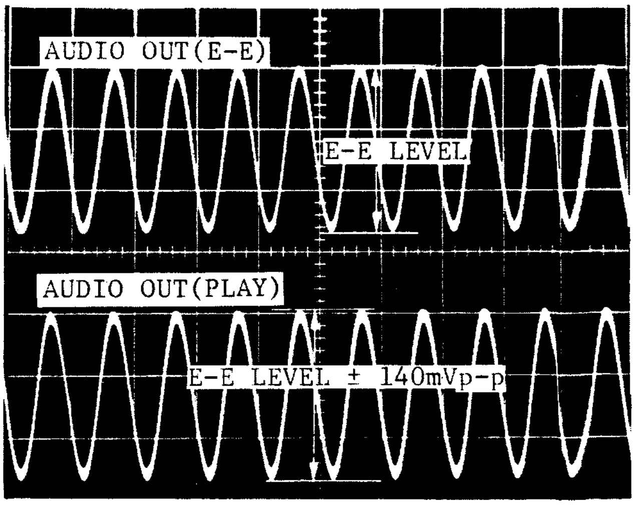


Fig. E14 500mV/1msec. div.

2-5. OPERATION SECTION

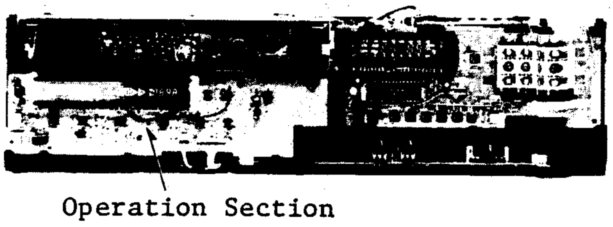

Operation Section

Fig. E15-(a) Operation Section

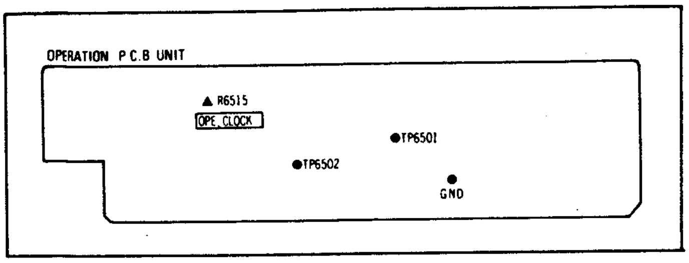

OPERATION P.C.B UNIT
R6515
OPE. CLOCK
TP6501
TP6502
GND

Fig. E15-(b) Operation Section

2-5-1 Operation Clock Adjustment

Test Point: TP6501
Adjustment: R6515 (OPE. CLOCK)

1. Disconnect the AC plug of the deck and connect a jumper wire between TP6502 and GND on the Operation P.C. Board Unit.
2. Connect the frequency counter to TP6501 on the same board, and connect the AC plug.
3. Adjust the R6515 on the same board so that the indication of the frequency counter becomes 22.0 ± 0.2kHz.

2-6. Timer & Channel Preset Section

Model No.: NV-370E

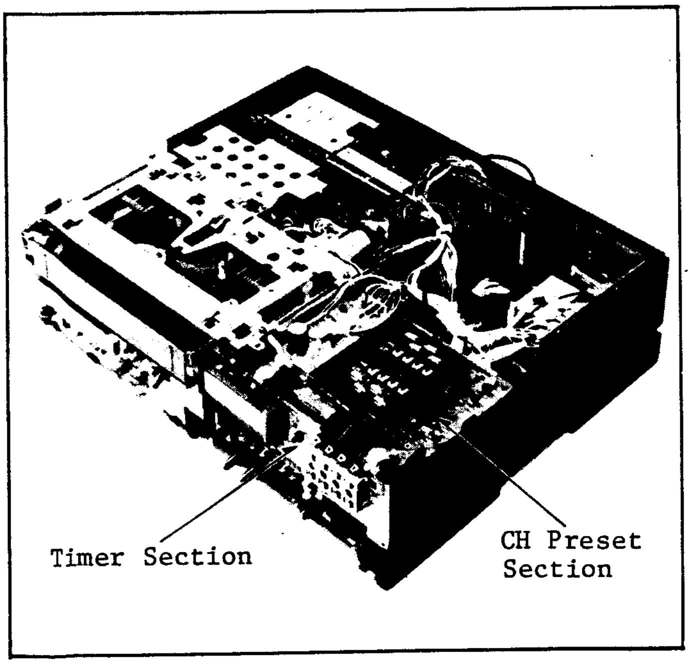

Timer Section
CH Preset Section

Fig. E16-(a) Timer & CH Preset Section

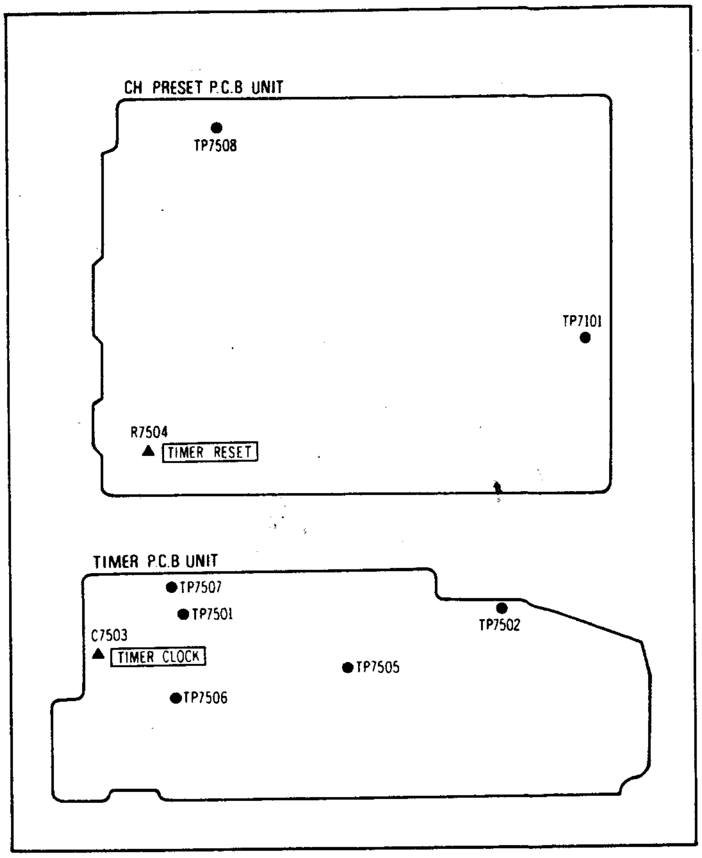

CH PRESET P.C.B UNIT
TP7508
TP7101
R7504
TIMER RESET
TIMER P.C.B UNIT
TP7507
TP7501
TP7502
C7503
TIMER CLOCK
TP7505
TP7506

Fig. E16-(b) Timer & CH Preset Section

2-6-1. Timer Reset Voltage Adjustment

Test Point:TP7506
Adjustment:R7504 (TIMER RESET)

1. Connect both the DC power supply and the digital voltmeter to TP7508 and TP7502(GND) on the Timer & Channel Preset Section.
2. Adjust the voltage of the DC power supply to 3.7V±0.05V.
3. Connect the scope to TP7506 on the same board.
4. Adjust the R7504 on the same board so that the clock signal disappears on the scope.
5. Vary the voltage of the DC power supply and confirm that the clock signal disappears when the voltage is 3.5V, and appears when the voltage is 3.9V.

2-6-2. Timer Clock Adjustment.

Test Point:TP7506
Adjustment:C7503 (TIMER CLOCK)

1. Connect the DC power supply to P7503-3 (HOT) and P7503-4 (GND) on the Timer & Channel Preset Section and set the voltage to 5.8V±0.1V.
2. Connect the jumper wire between BP7502-1 and GND on the same board.
3. Connect the diode (MA161 or MA166) between TP7501 (Anode side) and D7508-C (Cathode side) on the same board.
4. Connect a counter to TP7506 on the same board.
5. Adjust the C7503 so that the frequency becomes 271.7972±0.0006µsec.

2-7. Timer Section

Model No.: NV-370EG/B

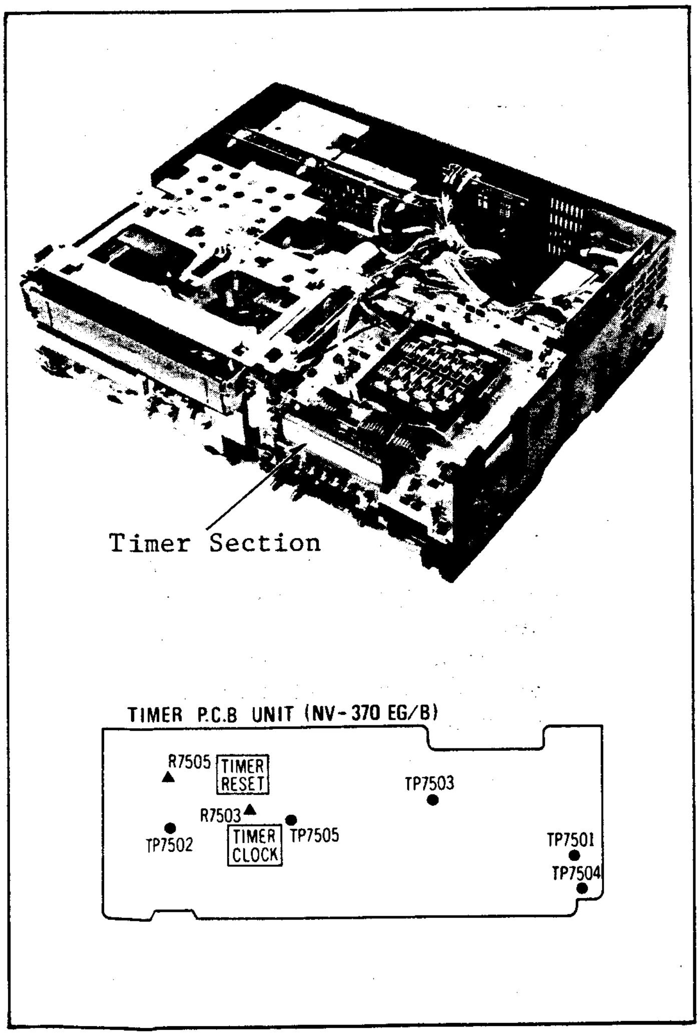


Fig. E17 Timer Section

2-7-1. Timer Reset Voltage Adjustment

Test Point: TP7505
Adjustment: R7505 (TIMER RESET)

1. Connect both the DC power supply and the digital voltmeter to TP7502 and TP7501 on the Timer Section.
2. Adjust the voltage of the DC power suppl supply to 3.7V±0.05V.
3. Connect the scope to TP7505 on the same board.
4. Adjust the R7505 on the same board so that the clock signal disappears on the scope.
5. Vary the voltage of the DC power supply and confirm that the clock signal disappears when the voltage is 3.5V, and appears when the voltage is 3.9V.

2-7-2. Timer Clock Adjustment.

Test Point: TP7505
Adjustment: C7503 (TIMER CLOCK)

1. Connect the DC power supply to P7503-3 (HOT) and P7503-4 (GND) on the Timer Section and set the voltage to 5.8V±0.1V.
2. Connect the jumper wire between BP7502-1 and GND on the same board.
3. Connect the diode (MA161 or MA166)
between TP7503 (Anode side) and
TP between TP7503 (Anode side) and TP7504 (Cathode side) on the same board.
4. Connect a counter to TP7505 on the same board.
5. Adjust the C7503 so that the frequency becomes 271.7972±0.0006µsec.

2-8. TV DEMODULATOR SECTION

Model No.: NV-370E/EG

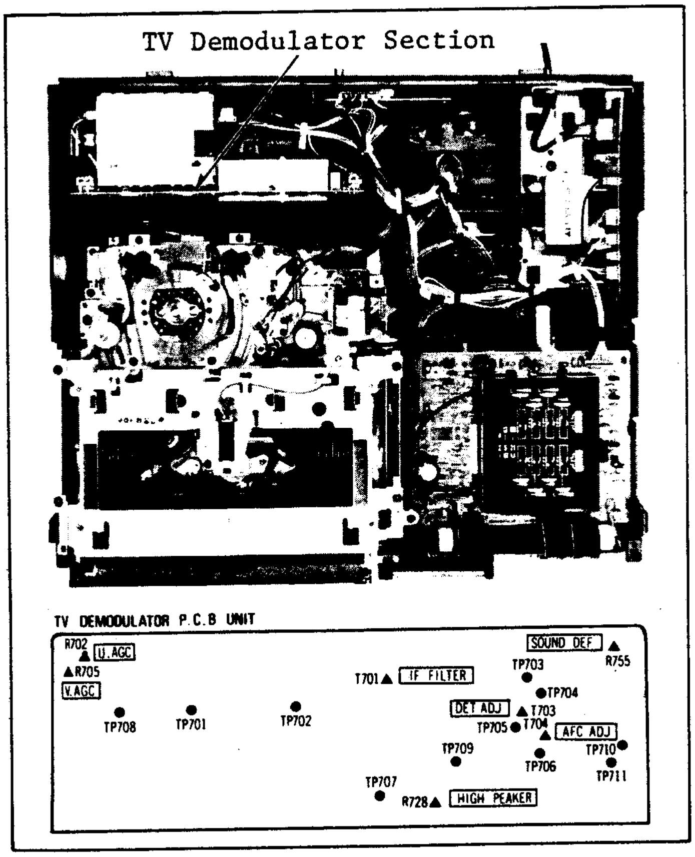

TV Demodulator Section
TV DEMODULATOR P.C.B UNIT
R702
U.AGC
R705
V.AGC
TP708
TP701
TP702
T701
IF FILTER
TP703
SOUND DEF
R755
TP704
DET ADJ
T703
TP705
T704
AFC ADJ
TP709
TP706
TP710
TP711
TP707
R728
HIGH PEAKER

Fig. E18

This section provides complete electrical adjustment procedures which may be required for TV demodulator circuit.

Test Equipment

To make adjustments completely, following equipments are required.

1. VIF Sweep Generator with the Trap Adjustor 38.9MHz
2. SIF Sweep Generator .... 5.5MHz ± 150kHz
3. CW Oscillator ..... 38.9MHz ± 100kHz
4. Digital Volt Meter
5. Oscilloscope
6. DC Power Supply
7. Monitor Scope

2-8-1. VIF Sweep Adjustment

1. Connect the H-Out of the VIF Sweep Generator to the H-In of the monitor scope.
2. Connect the Marker-Out of the VIF Sweep Generator to the Marker-In or Z-Terminal of the monitor scope.
3. Set the Channel Selector to the VHF High position (VH) and turn the tuning volume so that the voltage at BT terminal of the Tuner becomes 15 ± 1V DC.
4. Connect the jumper wire between TP701 (RF AGC) and ground.
5. Connect the 100Ω resistor between TP704 and TP705.
6. Connect the monitor scope to TP707.
7. Supply the output of the VIF Sweep Generator to Test Point of the Tuner.

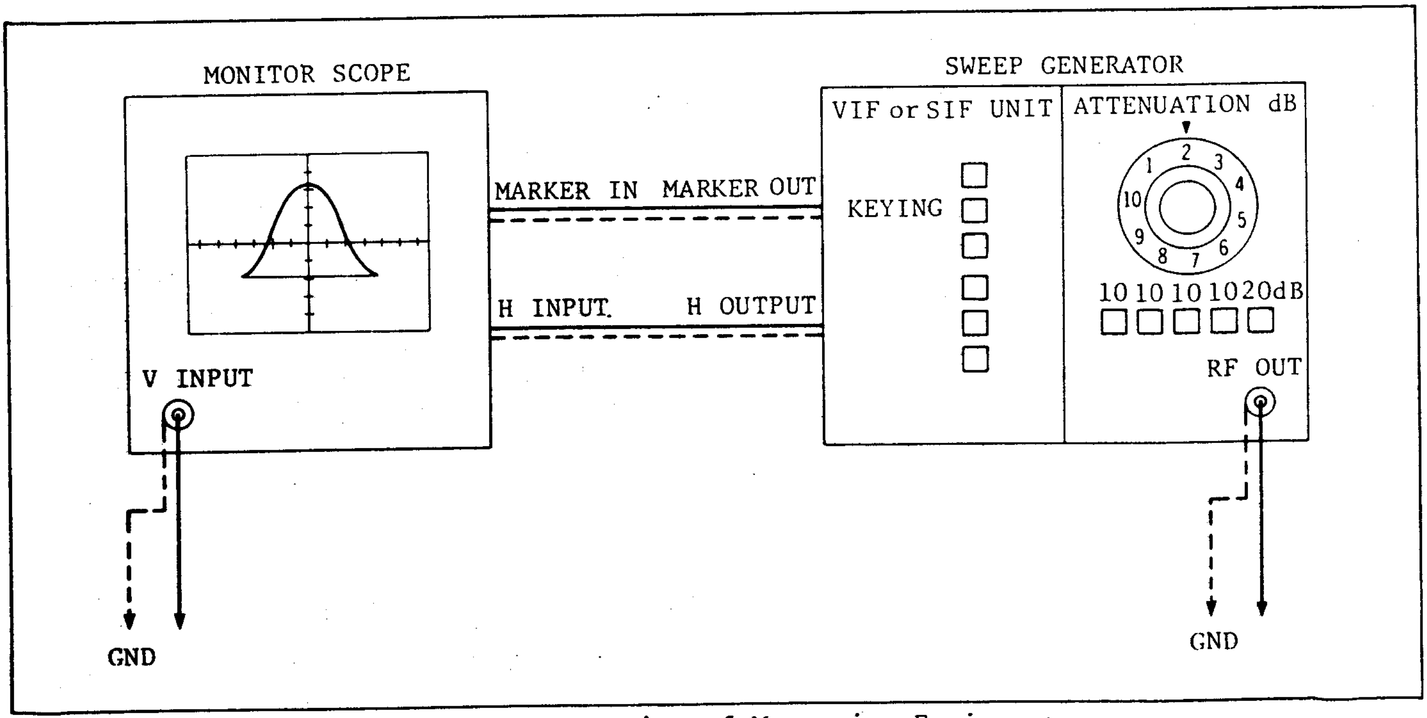

MONITOR SCOPE
V INPUT
GND
MARKER IN
MARKER OUT
H INPUT
H OUTPUT
SWEEP GENERATOR
VIF or SIF UNIT
KEYING
ATTENUATION dB
1
2
3
4
5
6
7
8
9
10
10 10 10 10 20dB
RF OUT
GND

Fig. E19 Connection of Measuring Equipment

8. Adjust the output of the VIF Sweep Generator so that the level of VIF waveform becomes 1.0Vp-p.
9. Release 20dB from the attenuator of the Sweep Generator.
10. Set the DC Power Supply at TP709, and supply the Voltage so that the level of VIF waveform becomes 1.0Vp-p.
11. Adjust T702 so that the attenuation of the 33.4MHz trap becomes minimum.
12. Adjust T701 (a) so that the attenuation of the 40.4MHz trap becomes minimum.
13. Adjust the Tuner Converter Coil, IF AMP Coil T700 and HLB Transformer T701 so that the sweep output waveform becomes as follows.

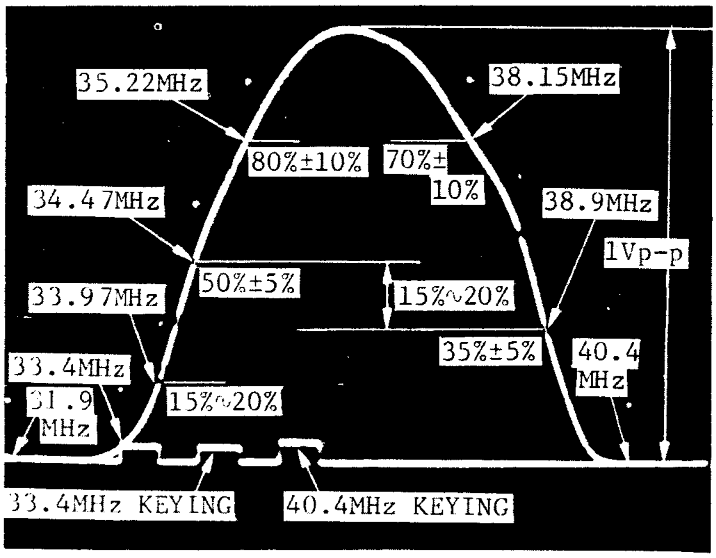
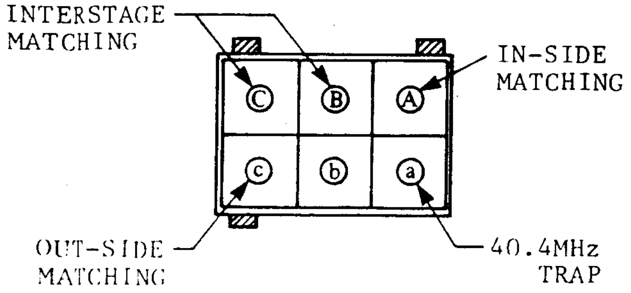


Fig. E20 VIF Waveform



* B coil for Interstage Matching is preset, so the adjustment is not required normally.

Fig. E21 HLB Transformer T701

2-8-2. Selective Coil Adjustment

1. Connection of measuring equipment is the same as in the VIF Sweep Adjustment.
2. Remove the 100Ω jumper wire.
3. Connect the output of the VIF Sweep Generator to TP703.
4. Setting of the output level of the DC Power Supply is same with that of VIF waveform adjustment.
5. Turn T704 2 turns clockwise or counterclockwise.
6. Adjust the output of the VIF Sweep Generator so that the sweep wave becomes 2Vp-p.
7. Adjust T703 so that the marker position at 38.9MHz is the peak of the wave as shown below.

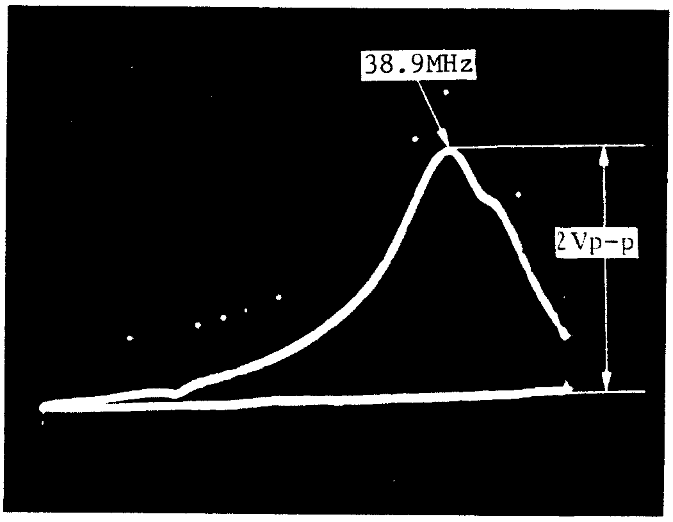


Fig. E22

8. After above adjustment, adjust T704 so that the marker position at 38.9MHz is as shown below.

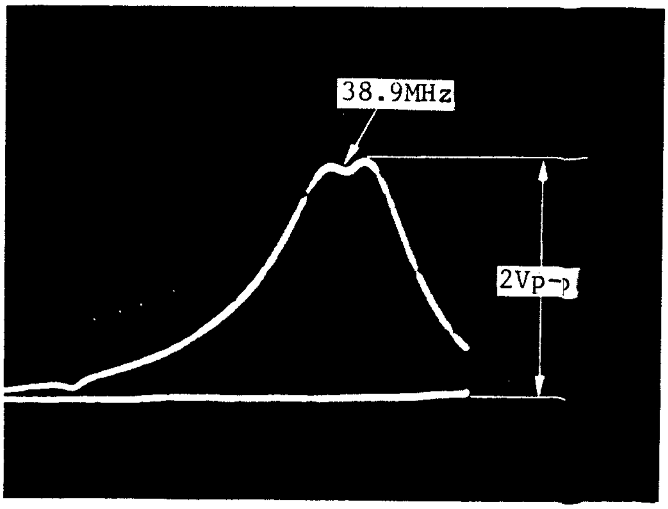


Fig. E23

2-8-3. SIF Sweep Adjustment

1. Connect the H-Out of the SIF Sweep Generator to the H-In of the monitor scope.
2. Connect the Marker-Out of the SIF Sweep Generator to the Marker-In or Z-terminal of the monitor scope.
3. Connect the oscilloscope to the output of the SIF Sweep Generator and set the sweep output to 700mVp-p at no load.
4. Connect the output of the SIF Sweep Generator to TP706.
5. Connect the monitor scope to TP710.
6. Turn R755 fully clockwise.
7. Adjust T752 so that the attenuation of 5.5MHz trap becomes minimum.
8. Adjust T751 for maximum peak-to-peak amplitude of response "S" curve as shown below.

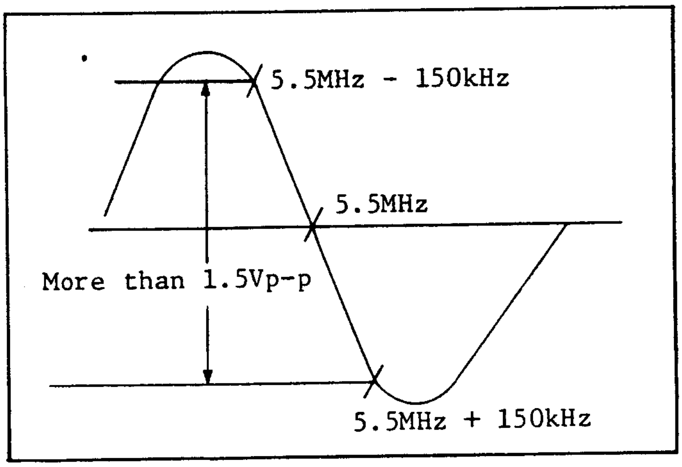


Fig. E24 SIF Waveform

9. Confirm that the level between the 150kHz marker position is more than 1.5Vp-p.

2-8-4. AFC Adjustment

1. Set the CW oscillator so that the 38.9MHz CW signal becomes 1Vp-p.
2. Supply this signal to the Tuner Test Point.
3. Set the channel Selector to the VHF High Position (VH) and turn the tuning volume so that the voltage at BT terminal of the Tuner becomes 15 ± 1V.
4. Connect the Digital Voltmeter to the Tuner AFC terminal TP702.
5. Confirm the reading "A" of the Digital Voltmeter is between 6.4V and 6.8V, when the AFC switch is off.
6. Set the AFC switch is "ON".
7. Adjust T704 so that the level at the Tuner AFC terminal TP702 becomes "A" ± 0.3V.
8. Change the frequency of the CW oscillator ±100kHz, centered at 38.9MHz and confirm that the difference of the AFC voltage is more than ±3V.

2-8-5. Confiramation of Video Level and Adjustment of Burst Level

1. Supply the PAL Standard Colour Bar signal to RF In terminal and tune this signal and set the AFC SW.
2. Connect the oscilloscope to TP711.
3. Confirm that the video level at TP711 is 1.0 ± 0.2Vp-p.
4. Adjust resistor R728 so that the burst level becomes 240 ± 10mVp-p as shown below.

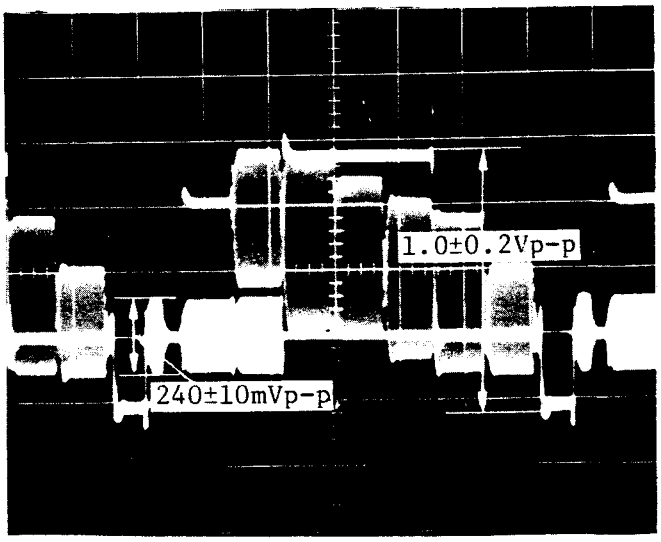


Fig. E25

2-9. TV DEMODULATOR SECTION

Model No.: NV-370B

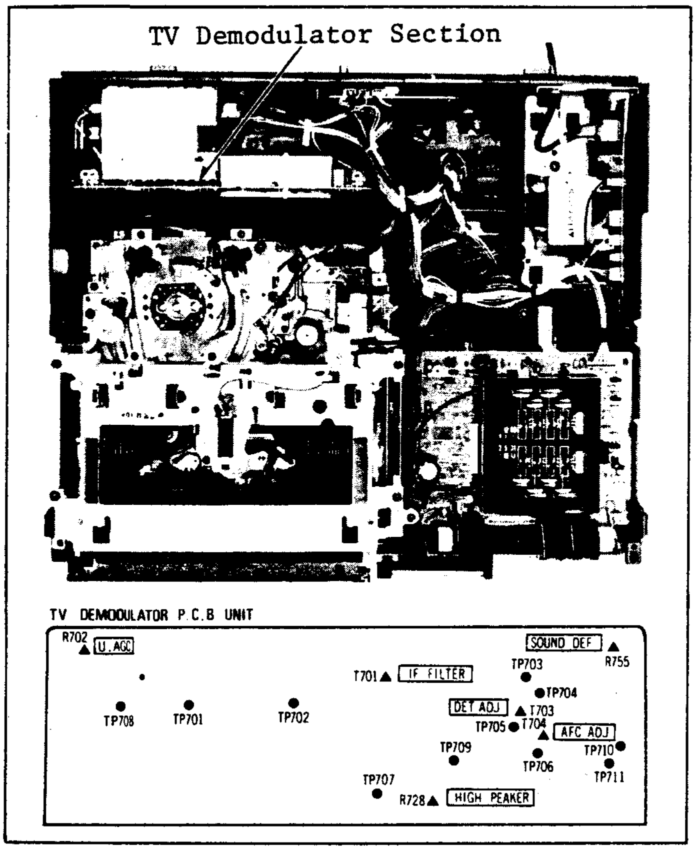

TV Demodulator Section
TV DEMODULATOR P.C.B UNIT
R702
U.AGC
SOUND DEF
R755
T701
IF FILTER
TP703
TP704
TP708
TP701
TP702
DET ADJ
T703
TP705
T704
AFC ADJ
TP709
TP710
TP706
TP711
TP707
R728
HIGH PEAKER

Fig. E26

This section provides complete electrical adjustment procedures which may be required for TV demodulator circuit.

Test Equipment

To make adjustments completely, following equipments are required.

1. VIF Sweep Generator with the Trap Adjustor 39.5MHz
2. SIF Sweep Generator ....6.0MHz ± 150kHz
3. CW Oscillator ......39.5MHz ± 100kHZ
4. Digital Volt Meter
5. Oscilloscope
6. DC Power Supply
7. Monitor Scope

2-9-1. VIF Sweep Adjustment

1. Connect the H-Out of the VIF Sweep Generator to the H-In of the monitor scope.
2. Connect the Marker-Out of the VIF Sweep Generator to the Marker-In or Z-Terminal of the monitor scope.
3. Set the Channel Selector to the VHF High position (VH) and turn the tuning volume so that the voltage at BT terminal of the Tuner becomes 15 ± 1V DC.
4. Connect the jumper wire between TP701 (RF AGC) and ground.
5. Connect the 100Ω resistor between TP704 and TP705.
6. Connect the monitor scope to TP707.
7. Supply the output of the VIF Sweep Generator to Test Point of the Tuner.

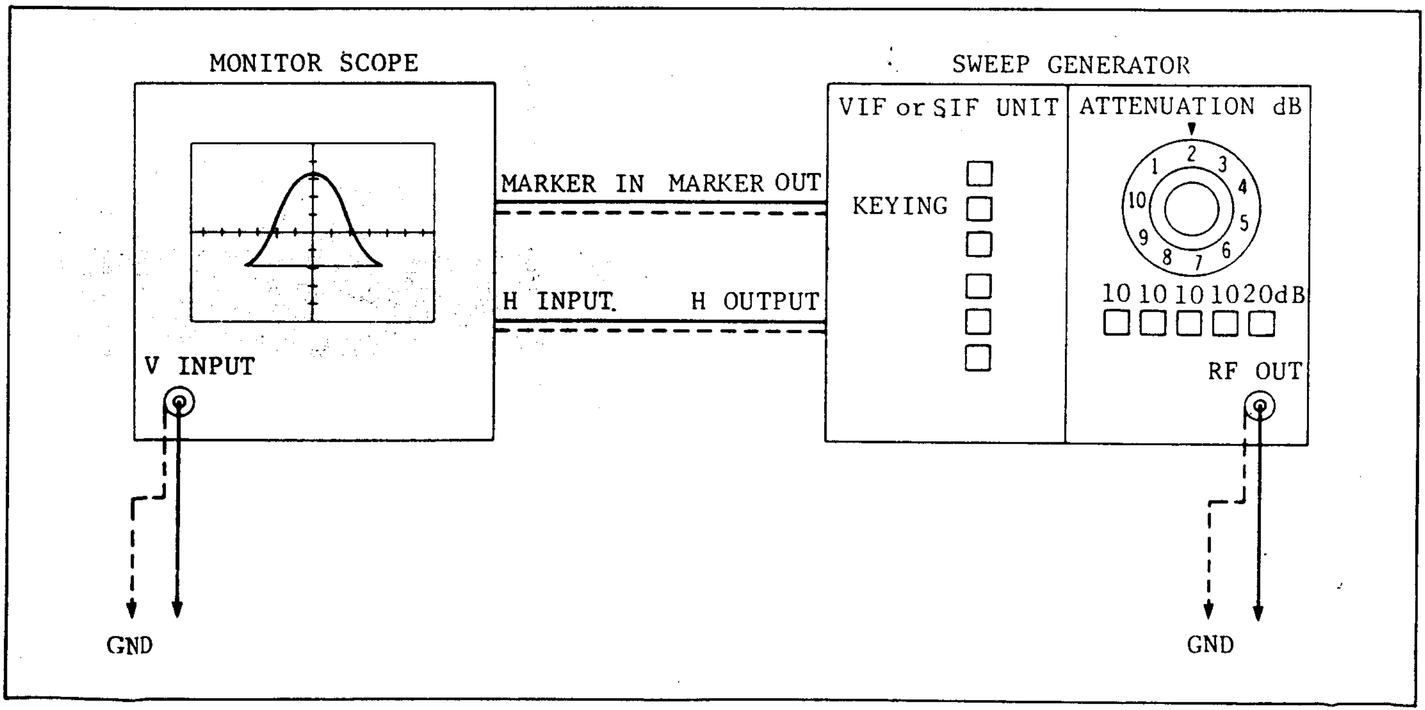

MONITOR SCOPE
SWEEP GENERATOR
VIF or SIF UNIT
ATTENUATION dB
MARKER IN
MARKER OUT
KEYING
1
2
3
4
5
6
7
8
9
10
10 10 10 10 20dB
H INPUT
H OUTPUT
V INPUT
RF OUT
GND
GND

Fig. E27 Connection of Measuring Equipment

8. Adjust the output of the VIF Sweep Generator so that the level of VIF waveform becomes 1.0Vp-p.
9. Release 20dB from the attenuator of the Sweep Generator.
10. Set the DC Power Supply at TP709, and supply the Voltage so that the level of VIF waveform becomes 1.0Vp-p.
11. Adjust T702 so that the attenuation of the 33.5MHz trap becomes minimum.
12. Adjust T701 (a) so that the attenuation of -he 41.5MHz trap becomes minimum.
13. Adjust the Tuner Converter Coil, IF AMP Coil T700 and HLB Transformer T701 so that the sweep output waveform becomes as follows.

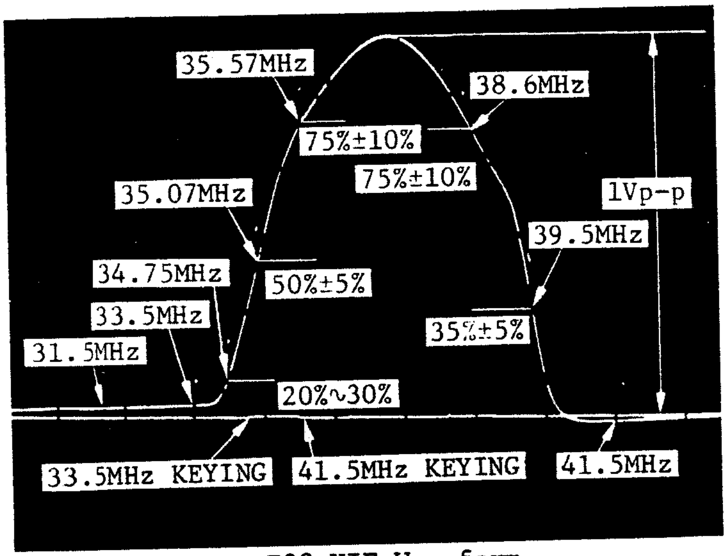
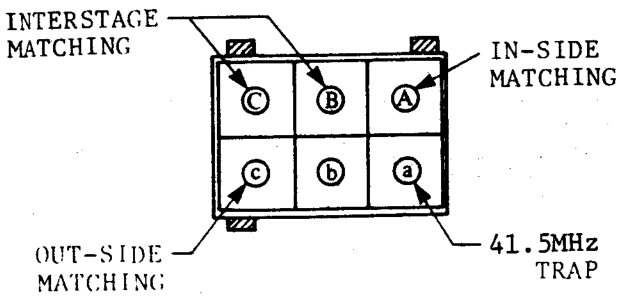


Fig. E28 VIF Waveform



* B coil for Interstage Matching is preset, so the adjustment is not required normally.

Fig. E29 HLB Transformer T701

2-9-2. Selective Coil Adjustment

1. Connection of measuring equipment is the same as in the VIF Sweep Adjustment.
2. Remove the 100Ω jumper wire.
3. Connect the output of the VIF Sweep Generator to TP703.
4. Setting of the output level of the DC Power Supply is same with that of VIF waveform adjustment.
5. Turn T704 2 turns clockwise or counterclockwise.
6. Adjust the output of the VIF Sweep Generator so that the sweep wave becomes 2Vp-p.
7. Adjust T703 so that the marker position at 39.5MHz is the peak of the wave as shown below.

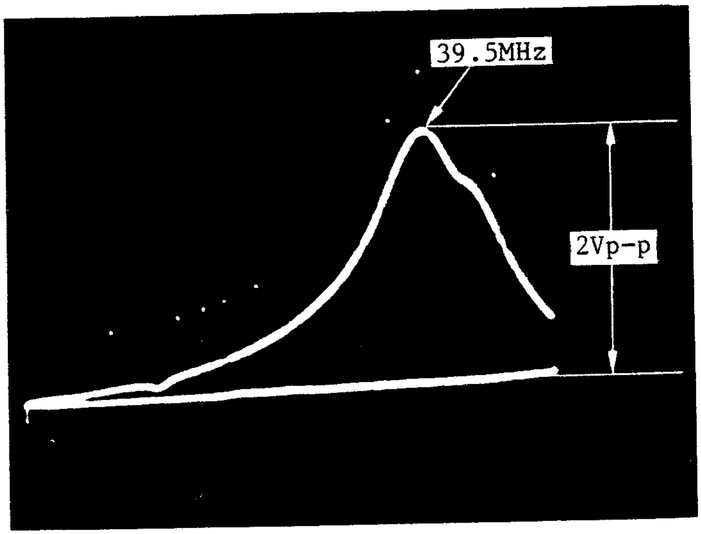


Fig. E30

8. After above adjustment, adjust T704 so that the marker position at 39.5MHz is as shown below.

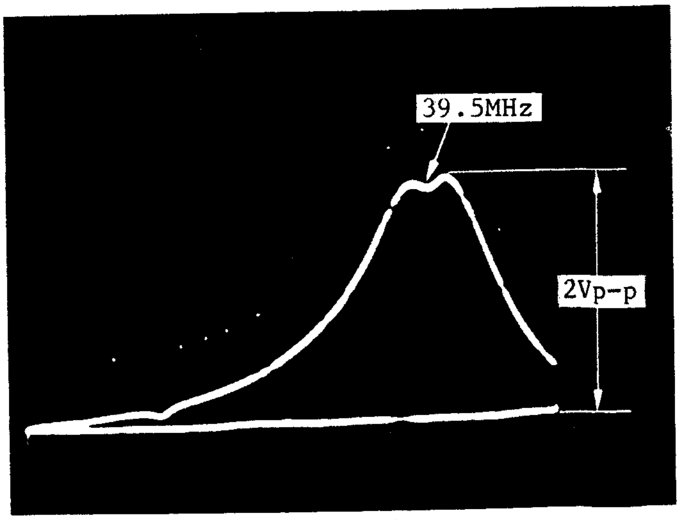


Fig. E31

2-9-3. SIF Sweep Adjustment

1. Connect the H-Out of the SIF Sweep Generator to the H-In of the monitor scope.
2. Connect the Marker-Out of the SIF Sweep Generator to the Marker-In or Z-terminal of the monitor scope.
3. Connect the oscilloscope to the output of the SIF Sweep Generator and set the sweep output to 700mVp-p at no load.
4. Connect the output of the SIF Sweep Generator to TP706.
5. Connect the monitor scope to TP710.
6. Turn R755 fully clockwise.
7. Adjust T752 so that the attenuation of 6.0MHz trap becomes minimum.
8. Adjust T751 for maximum peak-to-peak amplitude of response "S" curve as shown below.

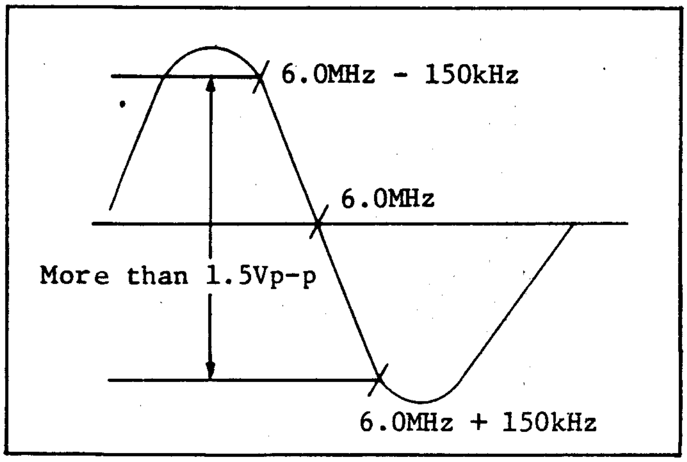


Fig. E32 SIF Waveform

9. Confirm that the level between the 150kHz marker position is more than 1.5Vp-p.

2-9-4. AFC Adjustment

1. Set the CW oscillator so that the 39.5MHz CW signal becomes 1Vp-p.
2. Supply this signal to the Tuner Test Point.
3. Set the channel Selector to the VHF High Position (VH) and turn the tuning volume so that the voltage at BT terminal of the Tuner becomes 15 ± 1V.
4. Connect the Digital Voltmeter to the Tuner AFC terminal TP702.
5. Confirm the reading "A" of the Digital Voltmeter is between 6.4V and 6.8V, when the AFC switch is off.
6. Set the AFC switch is "ON".
7. Adjust T704 so that the level at the Tuner AFC terminal TP702 becomes "A" ± 0.3V.
8. Change the frequency of the CW oscillator ±100kHz, centered at 39.5MHz and confirm that the difference of the AFC voltage is more than ±3V.

2-9-5. Confirmation of Video Level and Adjustment of Burst Level

1. Supply the PAL Standard Colour Bar signal to RF In terminal and tune this signal and set the AFC SW.
2. Connect the oscilloscope to TP711.
3. Confirm that the video level at TP711 is 1.0 ± 0.2Vp-p.
4. Adjust resistor R728 so that the burst level becomes 240 ± 10mVp-p as shown below.

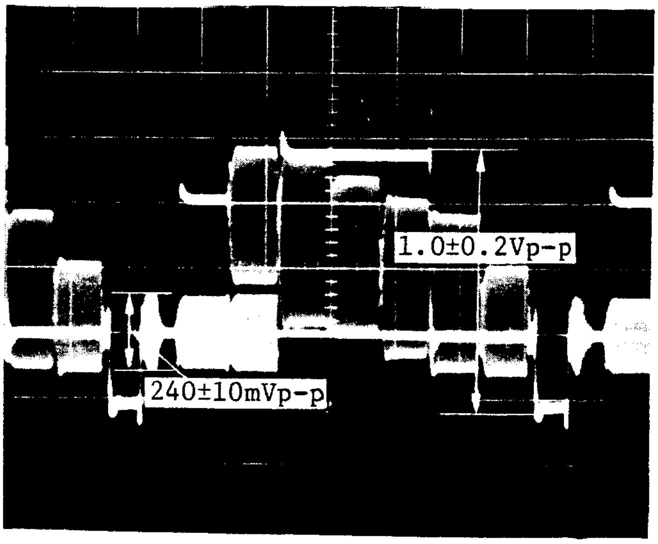


Fig. E33

ORDER NO. VRD-8308-478

Service Manual

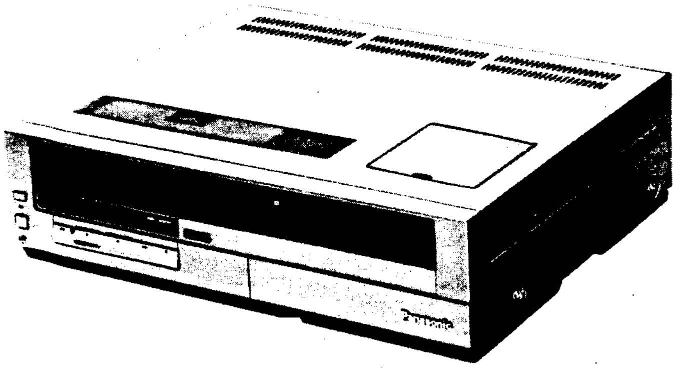
Video Cassette Recorder

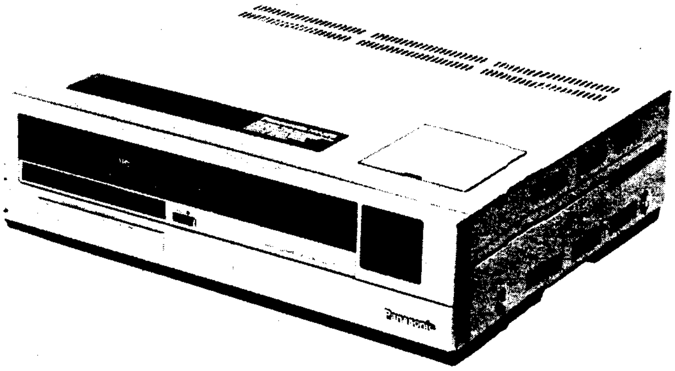
Panasonic VHS

NV-370-E -EG -B

Vol. 3

Block Diagrams
Schematic Diagrams





SPECIFICATIONS

Power Source: 220V AC 50/60Hz (NV-370E/EG)
240V AC 50/60Hz (NV-370B)
Power Consumption: Approx. 28 watts
Television System: CCIR: 625 lines, 50 fields
PAL colour signal (NV-370E/B)
CCIR: 625 lines, 50 fields PAL
/DDR SECAM colour signal
(NV-370EG)
Video Recording
System: 2 rotary heads, helical scanning system
Luminance: FM azimuth recording
Colour signal: converted subscarrier
phase shift recording
Audio Track: 1 track
Tape Format: Tape width 12.7mm high density tape
Tape Speed: 23.39mm/s
Record/Playback Time: 240min. with NV-E240
FF/REW Time: Less than 5.5min. with NV-E180
Heads: Video: 2 rotary heads
Audio/Control: 1 stationary head
Erase: 1 full track erase
Input Level: Video: VIDEO IN connector (BNC)
1.0Vp-p, 75Ω terminated
Audio: LINE IN jack (Phono jack)
More than −20dB, 50kΩ

TV Tuners: (NV-370E)
VHF CH2 ~ CH12
UHF CH21 ~ CH69
(NV-370EG)
VHF CH2 ~ CH12
UHF CH21 ~ CH69
(NV-370B)
UHF CH21 ~ CH69
Output Level: Video: VIDEO OUT connector (BNC)
1.0Vp-p, 75Ω terminated
Audio: LINE OUT jack (Phono jack)
−6dB, less than 1kΩ
RF Modulated: UHF 36 ± 4CH
73 ± 3dB 75Ω terminated
Weight: 8.2kg
Dimensions: 430(W) × 115(H) × 372(D)mm
Accessory Supplied: 1 pc. DIN-RF Cable VJA0130
1 pc. Video Cassette Tape (NV-370E/B)
1 pc. Wired Remote Controller,
VSQ0329 (NV-370E [Black]/EG/B)
VSQ0330 (NV-370E [Silver])
Optional Accessories: Video cassette tape:
NV-E240 Approx. 344m 240min.
NV-E180 Approx. 258m 180min.
NV-E120 Approx. 174m 120min.
NV-E60 Approx. 88m 60min.

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

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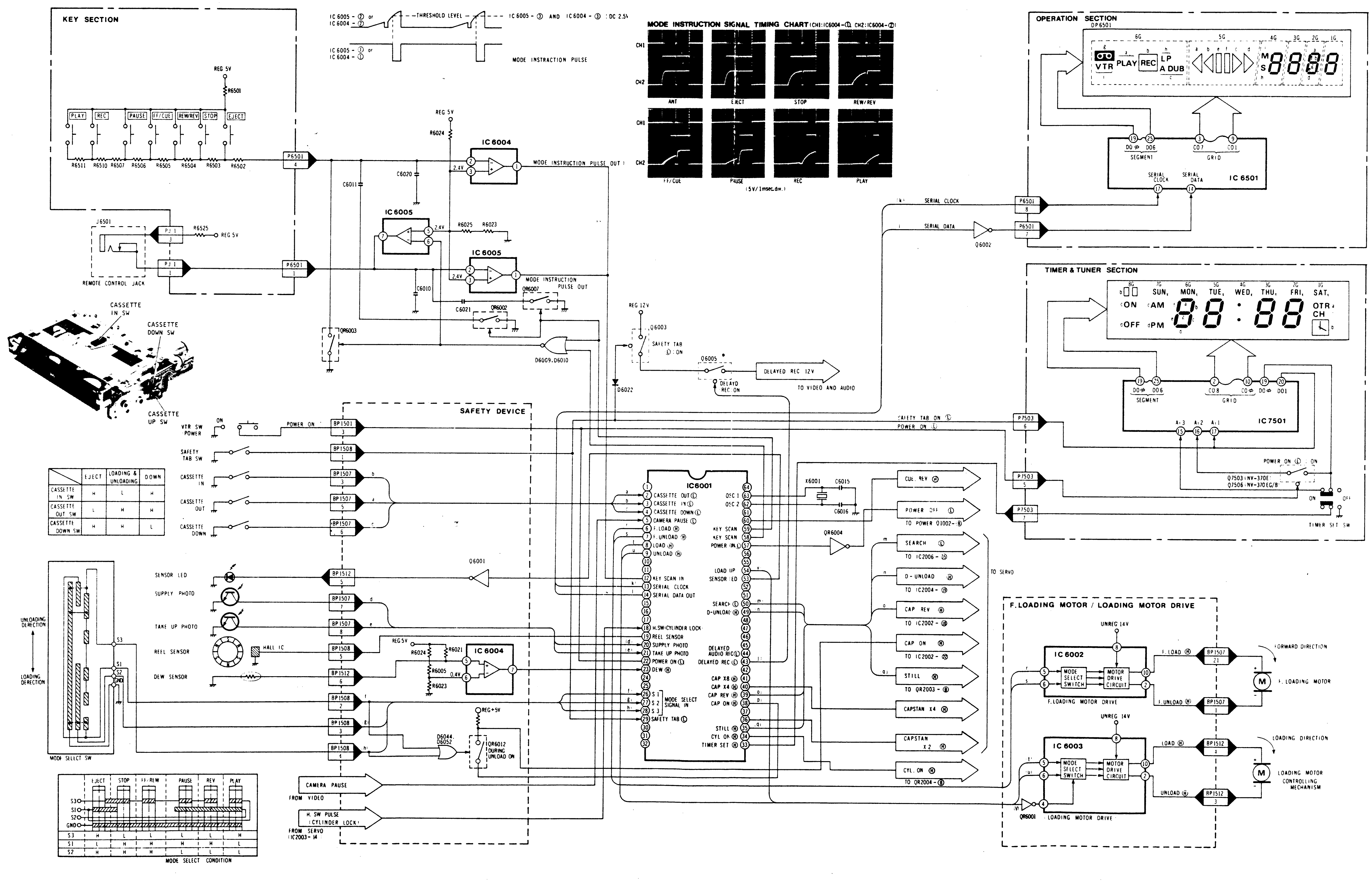
SYSTEM CONTROL BLOCK DIAGRAM (IC6001: MN15342VGC-3)



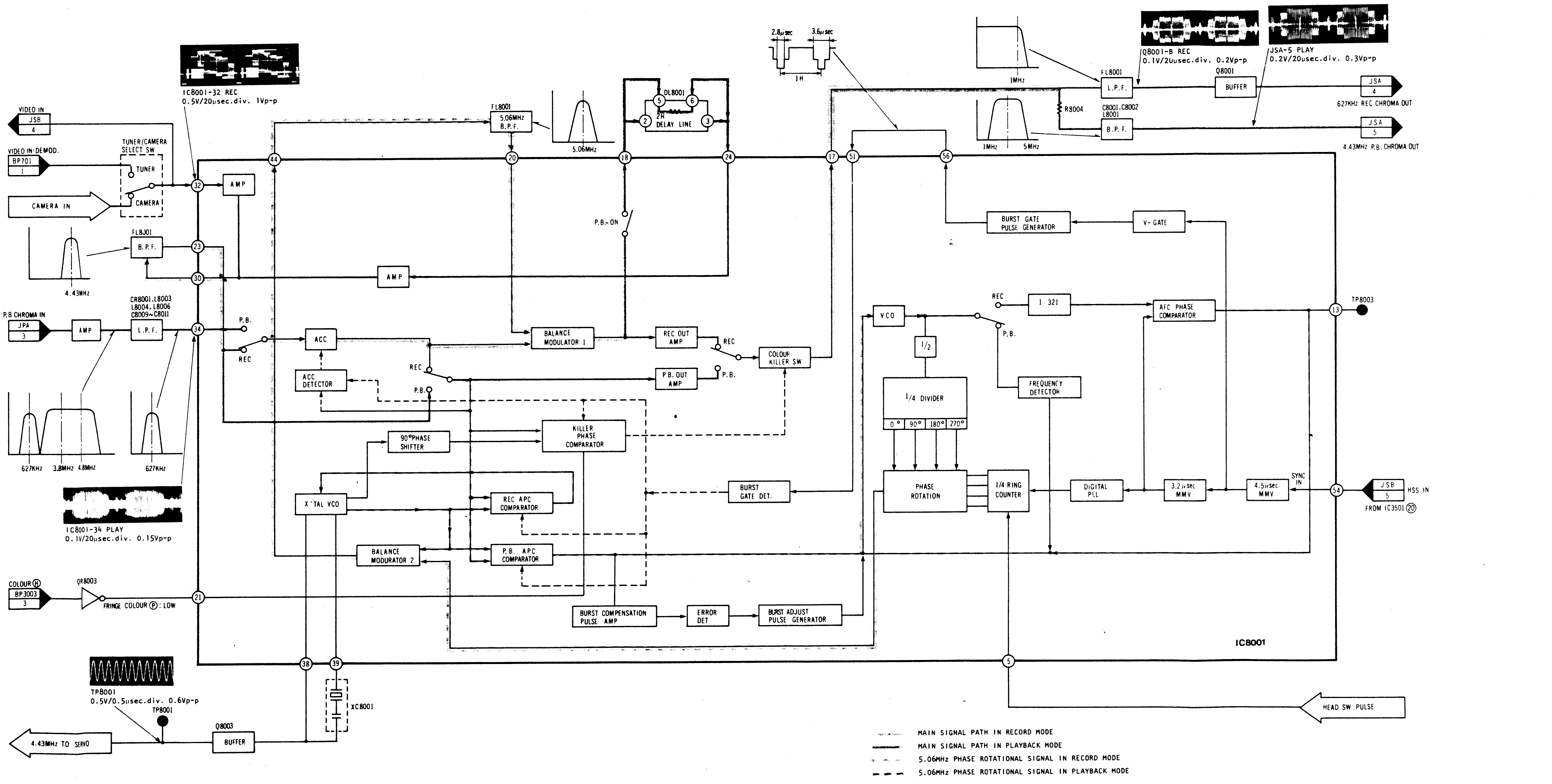
KEY SECTION
PLAY
REC
PAUSE
FF/CUE
REW/REV
STOP
EJECT
REG 5V
R6501
R6511
R6510
R6507
R6506
R6505
R6504
R6503
R6502
P6501
J6501
PJ1
R6525
REMOTE CONTROL JACK
IC 6005 - ③ or IC 6004 - ②
THRESHOLD LEVEL
IC 6005 - ③ AND IC 6004 - ③ : DC 2.5V
IC 6005 - ⑦ or IC 6004 - ①
MODE INSTRACTION PULSE
REG 5V
R6024
IC 6004
MODE INSTRUCTION PULSE OUT
C6020
C6011
IC 6005
R6025
R6023
C6010
MODE INSTRUCTION PULSE OUT
QR6007
C6021
QR6002
QR6003
D6009, D6010
MODE INSTRUCTION SIGNAL TIMING CHART (CH1: IC6004-①, CH2: IC6004-②)
CH1
CH2
ANT
EJECT
STOP
REW/REV
FF/CUE
PAUSE
REC
PLAY
(5V/1msec.div.)
CASSETTE IN SW
CASSETTE DOWN SW
CASSETTE UP SW
REG 12V
Q6003
SAFETY TAB ①: ON
Q6005
DELAYED REC ON
DELAYED REC 12V
TO VIDEO AND AUDIO
D6022
SAFETY DEVICE
VTR SW POWER
ON
POWER ON
BP1501
SAFETY TAB SW
BP1508
CASSETTE IN
BP1507
CASSETTE OUT
CASSETTE DOWN
SENSOR LED
BP1512
Q6001
SUPPLY PHOTO
TAKE UP PHOTO
REEL SENSOR
HALL IC
DEW SENSOR
REG 5V
R6024
R6021
IC 6004
R6005
R6023
0.4V
UNLOADING DIRECTION
LOADING DIRECTION
S3
S1
S2
GND
MODE SELECT SW
D6044, D6052
REG+5V
QR6012 DURING UNLOAD ON
CAMERA PAUSE
FROM VIDEO
H. SW PULSE (CYLINDER LOCK)
FROM SERVO (IC2003-14)
IC6001
CASSETTE OUT Ⓛ
CASSETTE IN Ⓛ
CASSETTE DOWN Ⓛ
CAMERA PAUSE Ⓛ
F.LOAD Ⓗ
F.UNLOAD Ⓗ
LOAD Ⓗ
UNLOAD Ⓗ
KEY SCAN IN
SERIAL CLOCK
SERIAL DATA OUT
H.SW(CYLINDER LOCK)
REEL SENSOR
SUPPLY PHOTO
TAKE UP PHOTO
POWER ON Ⓛ
DEW Ⓗ
S 1
S 2
S 3
MODE SELECT SIGNAL IN
SAFETY TAB Ⓛ
OSC 1
OSC 2
KEY SCAN
KEY SCAN
POWER ON Ⓛ
LOAD UP SENSOR LED
SEARCH Ⓛ
D-UNLOAD Ⓗ
DELAYED AUDIO REC Ⓛ
DELAYED REC Ⓛ
CAP X8 Ⓗ
CAP X4 Ⓗ
CAP REV Ⓗ
CAP ON Ⓗ
STILL Ⓗ
CYL ON Ⓗ
TIMER SET Ⓗ
X6001
C6015
C6016
QR6004
CUE, REV Ⓗ
POWER OFF Ⓛ
TO POWER Q1002-Ⓑ
SEARCH Ⓛ
TO IC2006-㉝
D-UNLOAD Ⓗ
TO IC2004-⑲
CAP REV Ⓗ
TO IC2002-⑱
CAP ON Ⓗ
TO IC2002-㉒
STILL Ⓗ
TO QR2003-Ⓑ
CAPSTAN X4 Ⓗ
CAPSTAN X2 Ⓗ
CYL.ON Ⓗ
TO QR2004-Ⓑ
TO SERVO
OPERATION SECTION
DP6501
VTR
PLAY
REC
LP
A DUB
M
S
8888
DOφ
DO6
SEGMENT
CO7
CO1
GRID
SERIAL CLOCK
SERIAL DATA
IC 6501
SERIAL CLOCK
SERIAL DATA
Q6002
TIMER & TUNER SECTION
SUN, MON, TUE, WED, THU, FRI, SAT,
ON
OFF
AM
PM
88:88
OTR
CH
DOφ DO6
SEGMENT
CO8 COφ
GRID
DOφ DO1
IC 7501
SAFETY TAB ON Ⓛ
POWER ON Ⓛ
P7503
POWER ON Ⓛ: ON
Q7503 (NV-370E)
Q7506 (NV-370EG/B)
ON
OFF
TIMER SET SW
F.LOADING MOTOR / LOADING MOTOR DRIVE
UNREG 14V
IC 6002
MODE SELECT SWITCH
MOTOR DRIVE CIRCUIT
F.LOADING MOTOR DRIVE
F. LOAD Ⓗ
F. UNLOAD Ⓗ
BP1507
FORWARD DIRECTION
M
F. LOADING MOTOR
IC 6003
LOADING MOTOR DRIVE
LOAD Ⓗ
UNLOAD Ⓗ
BP1512
LOADING DIRECTION
LOADING MOTOR CONTROLLING MECHANISM
QR6001

	EJECT	LOADING & UNLOADING	DOWN
CASSETTE IN SW	H	L	H
CASSETTE OUT SW	L	H	H
CASSETTE DOWN SW	H	H	L

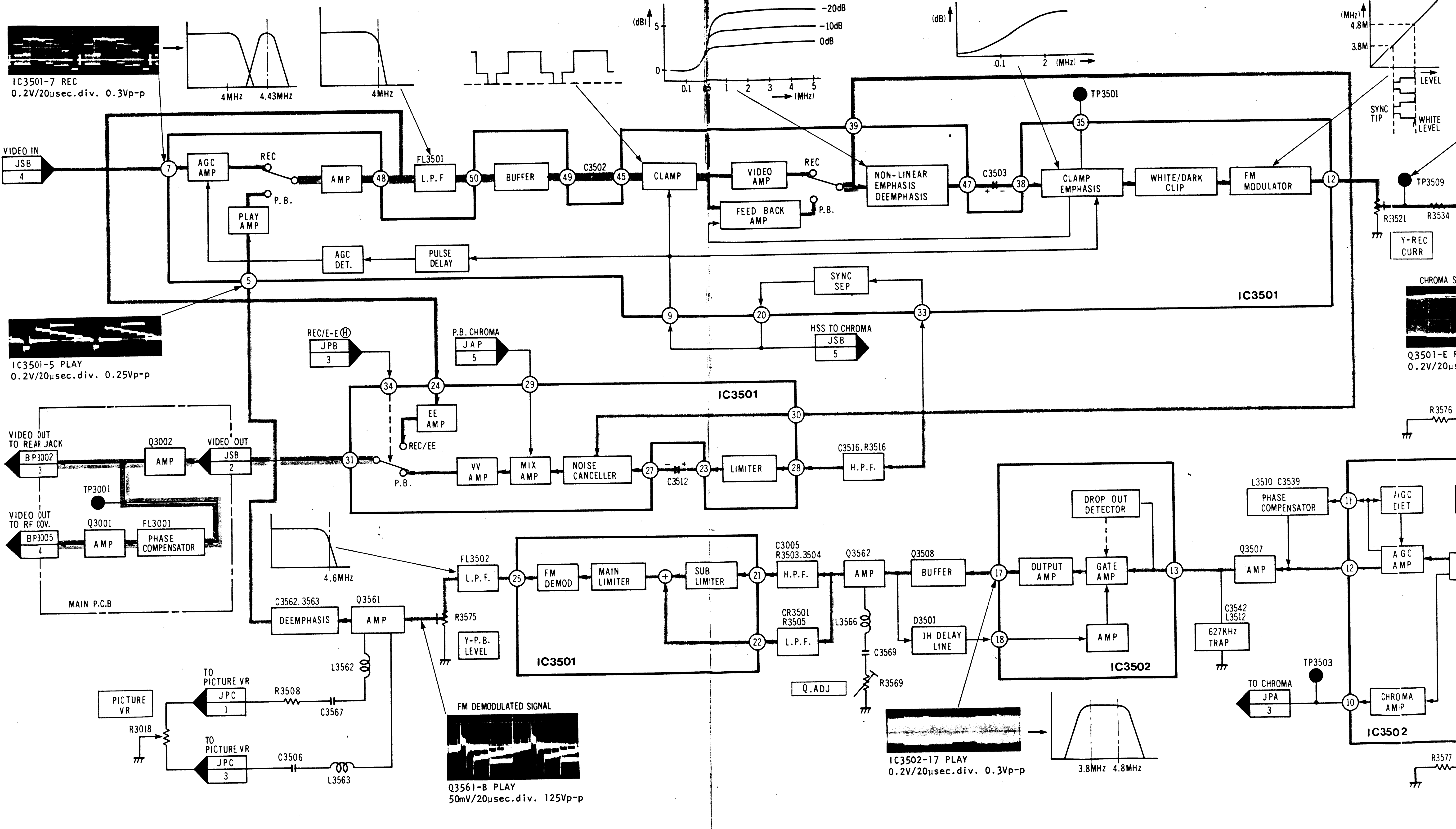
	EJECT	STOP	FF/REW	PAUSE	REV	PLAY
S3	H	L	L	L	L	H
S1	L	H	H	H	H	L
S2	H	H	H	L	L	L

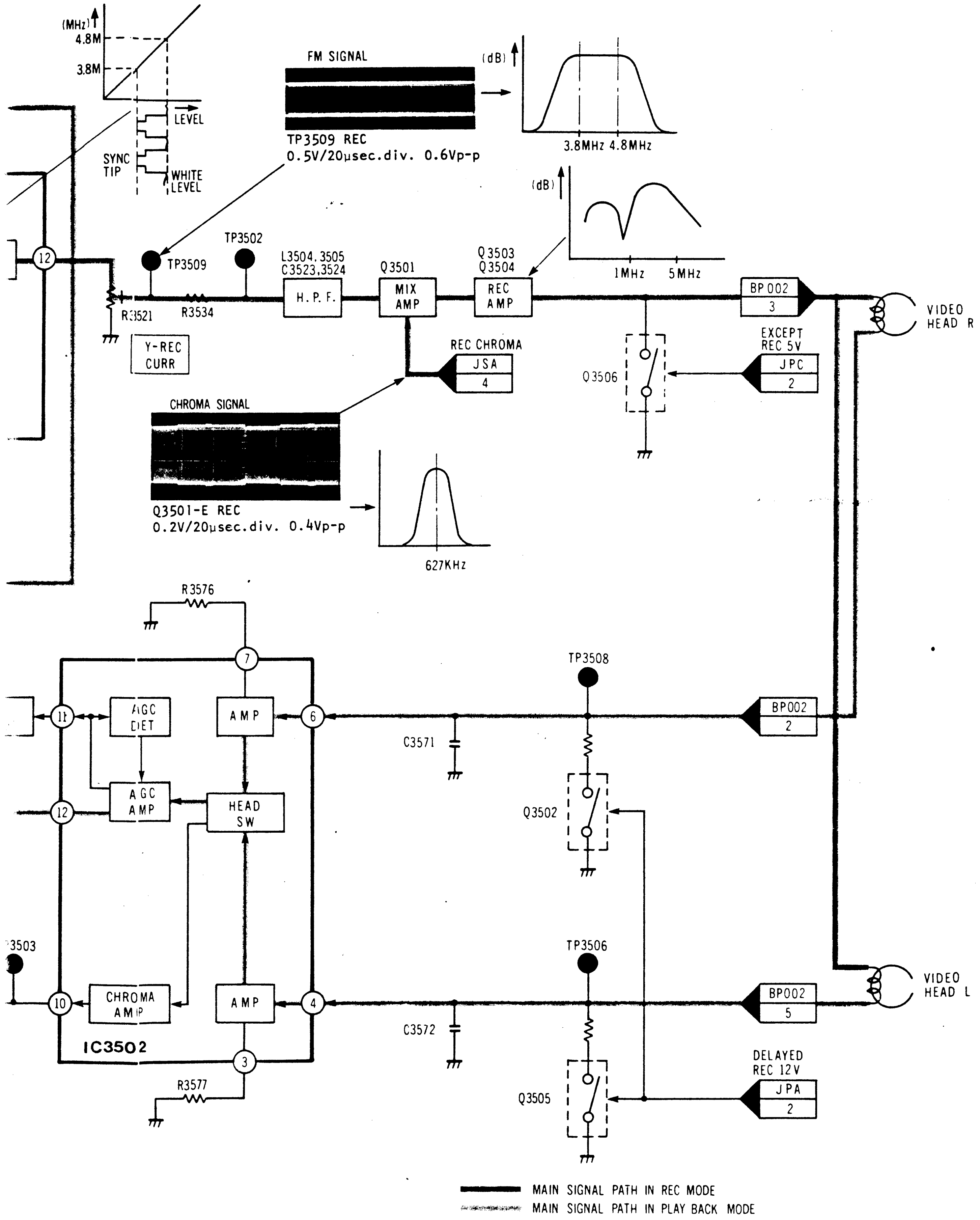
MODE SELECT CONDITION

CHROMINANCE PROCESS BLOCK DIAGRAM

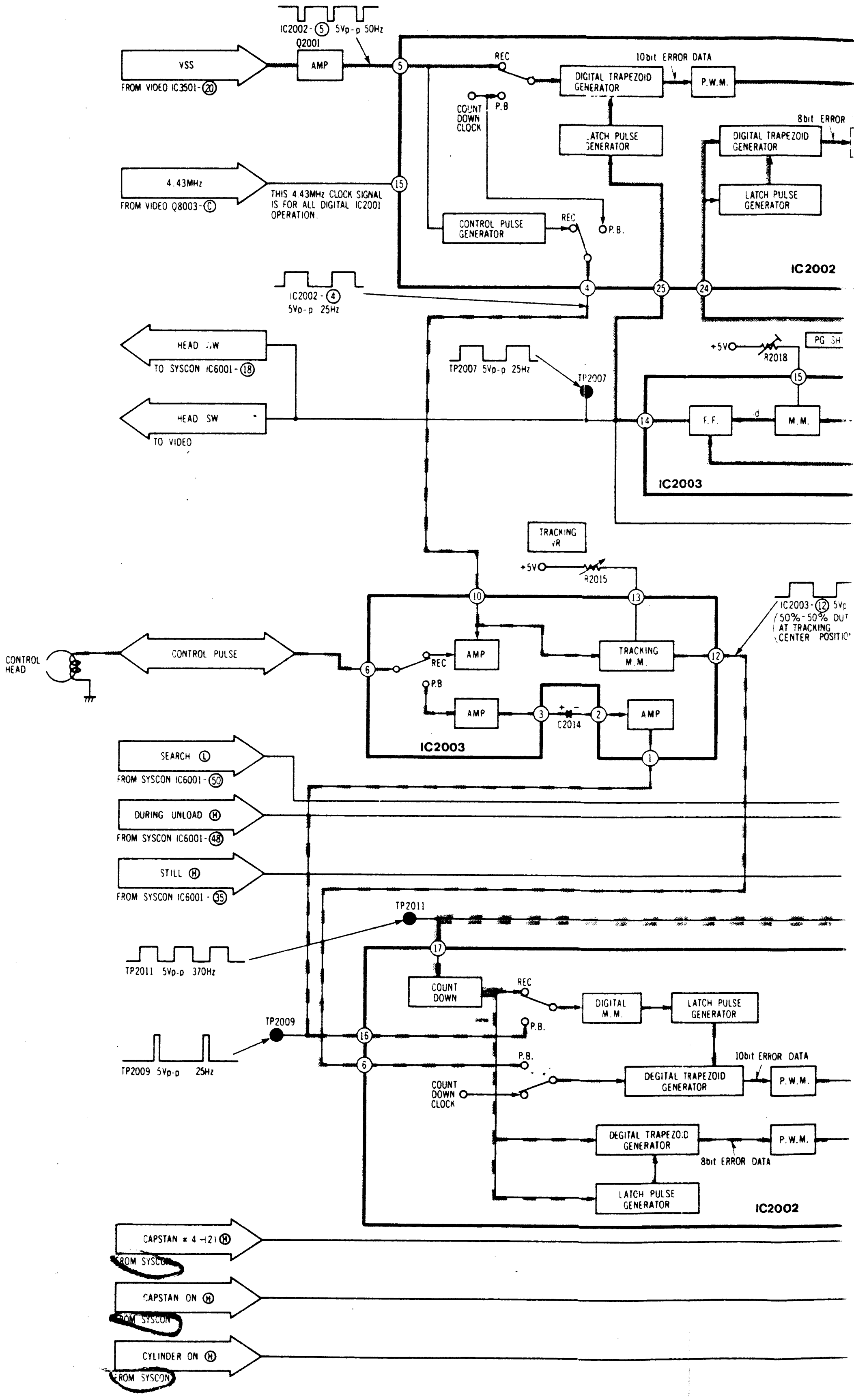

IC8001-32 REC
0.5V/20μsec.div. 1Vp-p
VIDEO IN
JSB
4
VIDEO IN DEMOD.
BP701
1
TUNER/CAMERA SELECT SW
TUNER
CAMERA
CAMERA IN
FL8J01
B.P.F.
4.43MHz
AMP
FL8001
5.06MHz B.P.F.
5.06MHz
DL8001
2H DELAY LINE
P.B.-ON
2.8μsec
3.6μsec
1H
1MHz
5MHz
FL8001
L.P.F.
R8004
C8001, C8002 L8001
B.P.F.
Q8001-B REC
0.1V/20μsec.div. 0.2Vp-p
Q8001
BUFFER
JSA-5 PLAY
0.2V/20μsec.div. 0.3Vp-p
JSA
4
627KHz REC CHROMA OUT
JSA
5
4.43MHz P.B. CHROMA OUT
BURST GATE PULSE GENERATOR
V-GATE
P.B CHROMA IN
JPA
3
CR8001, L8003 L8004, L8006 C8009~C8011
L.P.F.
P.B.
REC
ACC
ACC DETECTOR
BALANCE MODULATOR 1
REC OUT AMP
P.B. OUT AMP
COLOUR KILLER SW
627KHz
3.8MHz
4.8MHz
90°PHASE SHIFTER
KILLER PHASE COMPARATOR
X'TAL VCO
REC APC COMPARATOR
P.B. APC COMPARATOR
BALANCE MODURATOR 2
BURST GATE DET.
BURST COMPENSATION PULSE AMP
ERROR DET
BURST ADJUST PULSE GENERATOR
IC8001-34 PLAY
0.1V/20μsec.div. 0.15Vp-p
COLOUR Ⓗ
BP3003
3
Q8003
FRINGE COLOUR Ⓟ: LOW
VCO
1/2
1/4 DIVIDER
0°
90°
180°
270°
PHASE ROTATION
1/4 RING COUNTER
1 321
AFC PHASE COMPARATOR
FREQUENCY DETECTOR
DIGITAL PLL
3.2μsec MMV
4.5μsec MMV
SYNC IN
JSB
5
HSS IN
FROM IC3501 ⑳
TP8003
IC8001
HEAD SW PULSE
TP8001
0.5V/0.5μsec.div. 0.6Vp-p
TP8001
Q8003
BUFFER
XC8001
4.43MHz TO SERVO
44
20
18
24
17
51
56
32
23
30
34
21
38
39
5
13
54
MAIN SIGNAL PATH IN RECORD MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN RECORD MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE

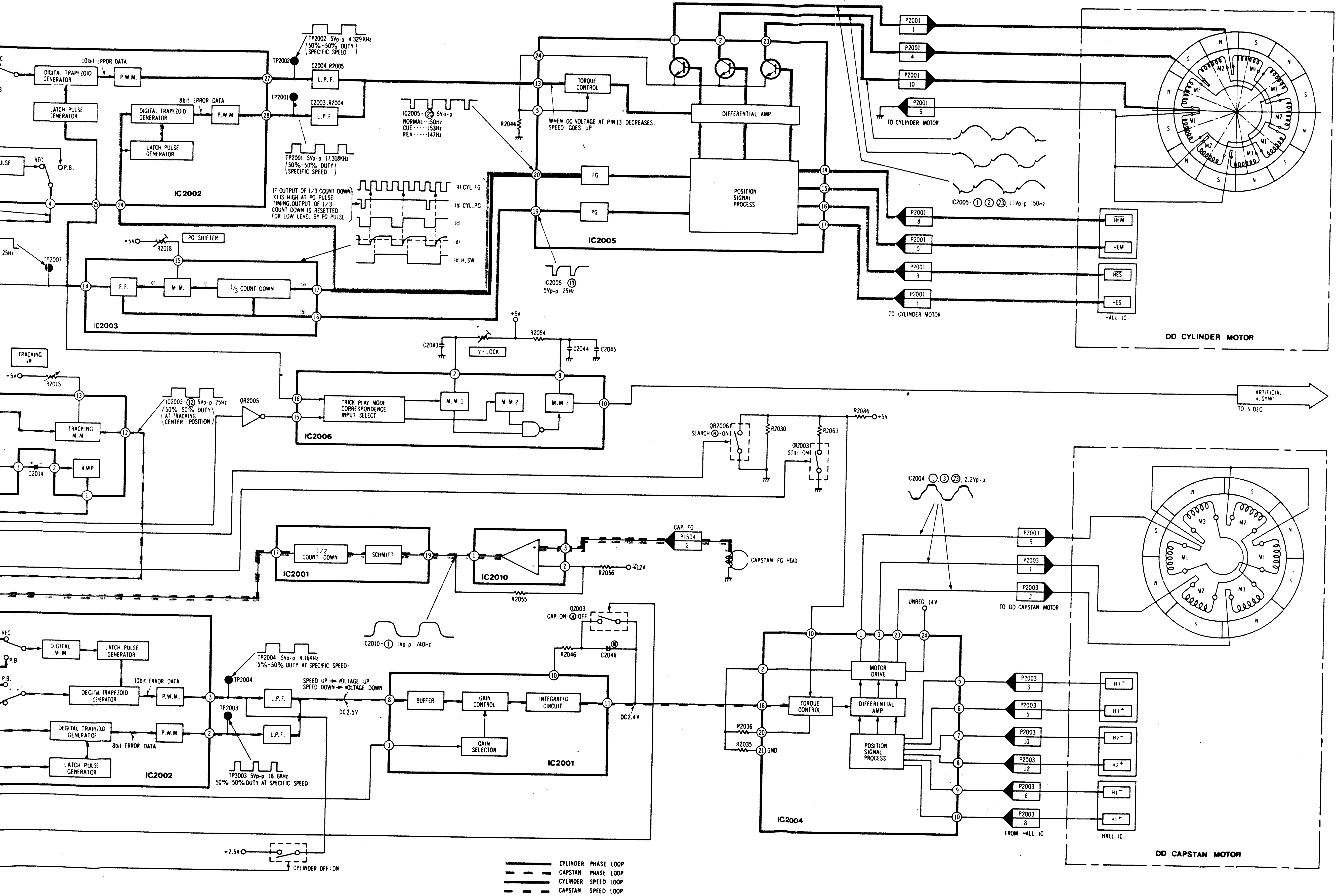
LUMINANCE PROCESS BLOCK DIAGRAM


IC3501-7 REC
0.2V/20μsec.div. 0.3Vp-p
4MHz
4.43MHz
4MHz
(dB)
5
0
-20dB
-10dB
0dB
0.1
0.5
1
2
3
4
5
(MHz)
(dB)
0.1
2 (MHz)
(MHz)
4.8M
3.8M
LEVEL
SYNC TIP
WHITE LEVEL
TP3501
TP3509
VIDEO IN
JSB
4
7
AGC AMP
REC
P.B.
AMP
48
FL3501
L.P.F
50
BUFFER
49
C3502
45
CLAMP
VIDEO AMP
REC
P.B.
FEED BACK AMP
39
NON-LINEAR EMPHASIS DEEMPHASIS
47
C3503
38
35
CLAMP EMPHASIS
WHITE/DARK CLIP
FM MODULATOR
12
R3521
R3534
Y-REC CURR
PLAY AMP
AGC DET.
PULSE DELAY
5
SYNC SEP
9
20
33
IC3501
HSS TO CHROMA
JSB
5
CHROMA
IC3501-5 PLAY
0.2V/20μsec.div. 0.25Vp-p
Q3501-E
0.2V/20μ
REC/E-E Ⓗ
JPB
3
P.B. CHROMA
JAP
5
34
24
29
EE AMP
REC/EE
IC3501
30
R3576
VIDEO OUT TO REAR JACK
BP3002
3
Q3002
AMP
VIDEO OUT
JSB
2
31
P.B.
VV AMP
MIX AMP
NOISE CANCELLER
27
C3512
23
LIMITER
28
C3516, R3516
H.P.F.
TP3001
VIDEO OUT TO RF COV.
BP3005
4
Q3001
AMP
FL3001
PHASE COMPENSATOR
MAIN P.C.B
4.6MHz
FL3502
L.P.F.
25
FM DEMOD
MAIN LIMITER
+
SUB LIMITER
21
22
IC3501
C3005
R3503, 3504
H.P.F.
CR3501
R3505
L.P.F.
Q3562
AMP
L3566
C3569
R3569
Q.ADJ
Q3508
BUFFER
D3501
1H DELAY LINE
17
18
OUTPUT AMP
DROP OUT DETECTOR
GATE AMP
AMP
13
IC3502
L3510 C3539
PHASE COMPENSATOR
11
AGC DET
AGC AMP
12
Q3507
AMP
C3542
L3512
627KHz TRAP
TP3503
TO CHROMA
JPA
3
10
CHROMA AMP
IC3502
R3577
C3562, 3563
DEEMPHASIS
Q3561
AMP
R3575
Y-P.B. LEVEL
L3562
PICTURE VR
TO PICTURE VR
JPC
1
R3508
C3567
R3018
TO PICTURE VR
JPC
3
C3506
L3563
FM DEMODULATED SIGNAL
Q3561-B PLAY
50mV/20μsec.div. 125Vp-p
IC3502-17 PLAY
0.2V/20μsec.div. 0.3Vp-p
3.8MHz
4.8MHz


(MHz)
4.8M
3.8M
LEVEL
SYNC TIP
WHITE LEVEL
FM SIGNAL
TP3509 REC
0.5V/20µsec.div. 0.6Vp-p
(dB)
3.8MHz 4.8MHz
(dB)
1MHz
5MHz
TP3509
TP3502
L3504, 3505
C3523, 3524
H. P. F.
Q3501
MIX AMP
Q3503
Q3504
REC AMP
BP002
3
VIDEO HEAD R
R3521
R3534
Y-REC CURR
REC CHROMA
JSA
4
EXCEPT REC 5V
JPC
2
Q3506
CHROMA SIGNAL
Q3501-E REC
0.2V/20µsec.div. 0.4Vp-p
627KHz
R3576
7
TP3508
AGC DET
AMP
6
C3571
BP002
2
AGC AMP
HEAD SW
12
11
Q3502
3503
TP3506
10
CHROMA AMP
AMP
4
C3572
BP002
5
VIDEO HEAD L
IC3502
3
R3577
Q3505
DELAYED REC 12V
JPA
2
MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAY BACK MODE

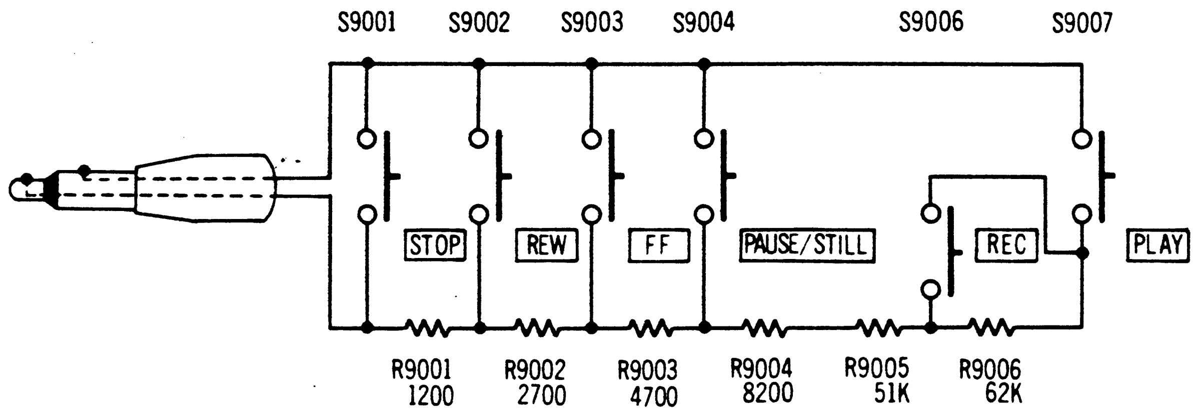
SERVO BLOCK DIAGRAM


IC2002-⑤ 5Vp-p 50Hz
Q2001
AMP
VSS
FROM VIDEO IC3501-⑳
5
REC
10bit ERROR DATA
DIGITAL TRAPEZOID GENERATOR
P.W.M.
COUNT DOWN CLOCK
P.B
LATCH PULSE GENERATOR
8bit ERROR
DIGITAL TRAPEZOID GENERATOR
LATCH PULSE GENERATOR
4.43MHz
FROM VIDEO Q8003-Ⓒ
15
THIS 4.43MHz CLOCK SIGNAL IS FOR ALL DIGITAL IC2001 OPERATION.
CONTROL PULSE GENERATOR
REC
P.B.
IC2002
IC2002-④ 5Vp-p 25Hz
4
25
24
HEAD SW
TO SYSCON IC6001-⑱
HEAD SW
TO VIDEO
TP2007 5Vp-p 25Hz
TP2007
+5V
R2018
PG SH
15
14
F.F.
d
M.M.
IC2003
TRACKING VR
+5V
R2015
10
13
IC2003-⑫ 5Vp
50%-50% DUT
AT TRACKING
CENTER POSITIO
CONTROL HEAD
CONTROL PULSE
6
REC
AMP
TRACKING M.M.
12
P.B
AMP
3
C2014
2
AMP
1
IC2003
SEARCH Ⓛ
FROM SYSCON IC6001-㊿
DURING UNLOAD Ⓗ
FROM SYSCON IC6001-(48)
STILL Ⓗ
FROM SYSCON IC6001-㉟
TP2011
TP2011 5Vp-p 370Hz
17
COUNT DOWN
REC
DIGITAL M.M.
LATCH PULSE GENERATOR
TP2009
16
P.B.
TP2009 5Vp-p 25Hz
6
P.B.
10bit ERROR DATA
COUNT DOWN CLOCK
DEGITAL TRAPEZOID GENERATOR
P.W.M.
DEGITAL TRAPEZOID GENERATOR
P.W.M.
8bit ERROR DATA
LATCH PULSE GENERATOR
IC2002
CAPSTAN × 4 -(2) Ⓗ
ROM SYSCON
CAPSTAN ON Ⓗ
ROM SYSCON
CYLINDER ON Ⓗ
ROM SYSCON



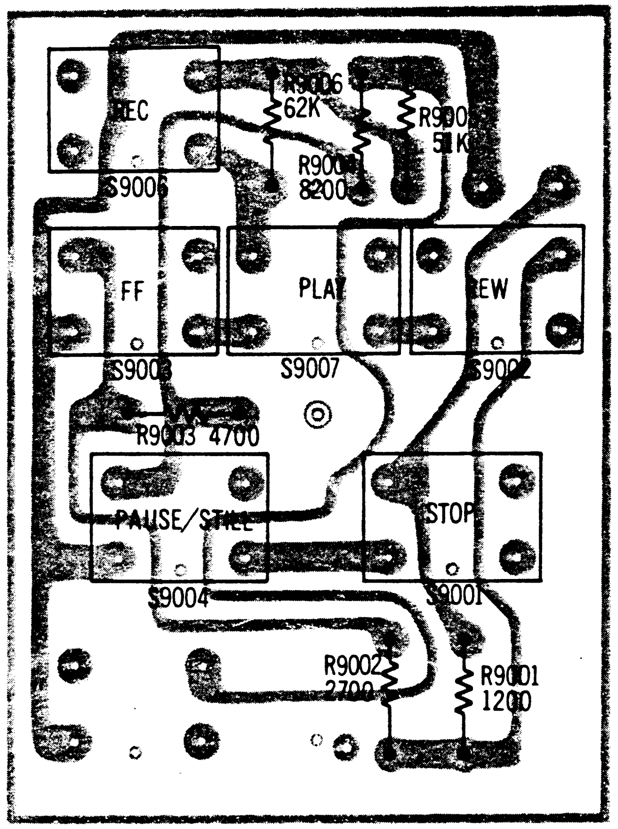
10bit ERROR DATA
DIGITAL TRAPEZOID GENERATOR
P.W.M.
LATCH PULSE GENERATOR
8bit ERROR DATA
IC2002
TP2002 5Vp-p 4.329KHz (50%-50% DUTY SPECIFIC SPEED)
TP2002
TP2001
C2004, R2005
C2003, R2004
L.P.F.
TP2001 5Vp-p 17.318KHz (50%-50% DUTY SPECIFIC SPEED)
REC
P.B.
25Hz
TP2007
+5V
R2018
PG SHIFTER
F.F.
M.M.
1/3 COUNT DOWN
IC2003
IF OUTPUT OF 1/3 COUNT DOWN (c) IS HIGH AT PG PULSE TIMING, OUTPUT OF 1/3 COUNT DOWN IS RESETTED FOR LOW LEVEL BY PG PULSE
(a) CYL.FG
(b) CYL.PG
(c)
(d)
(e) H.SW
IC2005-⑳ 5Vp-p
NORMAL···150Hz
CUE·······153Hz
REV·······147Hz
R2044
TORQUE CONTROL
WHEN DC VOLTAGE AT PIN 13 DECREASES. SPEED GOES UP
DIFFERENTIAL AMP
FG
PG
POSITION SIGNAL PROCESS
IC2005
IC2005-⑲ 5Vp-p 25Hz
P2001
TO CYLINDER MOTOR
IC2005-①,②,㉓, 11Vp-p 150Hz
HEM
HES
HALL IC
N
S
M1
M2
M3
DD CYLINDER MOTOR
C2043
V-LOCK
R2054
C2044
C2045
TRACKING VR
R2015
TRACKING M.M.
IC2003-⑫ 5Vp-p 25Hz (50%-50% DUTY AT TRACKING CENTER POSITION)
QR2005
C2014
AMP
TRICK PLAY MODE CORRESPONDENCE INPUT SELECT
M.M.1
M.M.2
M.M.3
IC2006
ARTIFICIAL V.SYNC
TO VIDEO
R2086
QR2006 SEARCH Ⓗ-ON
R2030
R2063
QR2003 STILL-ON
1/2 COUNT DOWN
SCHMITT
IC2001
IC2010
R2056
-12V
R2055
CAP. FG
P1504
CAPSTAN FG HEAD
IC2010-① 1Vp-p 740Hz
Q2003 CAP. ON-Ⓗ:OFF
R2046
C2046
DIGITAL M.M.
DEGITAL TRAPEZOID GENERATOR
TP2004 5Vp-p 4.16KHz (5%-50% DUTY AT SPECIFIC SPEED)
TP2004
TP2003
TP3003 5Vp-p 16.6KHz 50%-50% DUTY AT SPECIFIC SPEED
SPEED UP → VOLTAGE UP
SPEED DOWN → VOLTAGE DOWN
DC2.5V
BUFFER
GAIN CONTROL
INTEGRATED CIRCUIT
GAIN SELECTOR
DC2.4V
+2.5V
CYLINDER OFF:ON
IC2004-①,③,㉓, 2.2Vp-p
P2003
TO DD CAPSTAN MOTOR
UNREG 14V
MOTOR DRIVE
R2036
R2035
GND
IC2004
FROM HALL IC
H3⁻
H3⁺
H2⁻
H2⁺
H1⁻
H1⁺
DD CAPSTAN MOTOR
CYLINDER PHASE LOOP
CAPSTAN PHASE LOOP
CYLINDER SPEED LOOP
CAPSTAN SPEED LOOP

REMOTE CONTROLLER SCHEMATIC DIAGRAM


S9001
S9002
S9003
S9004
S9006
S9007
STOP
REW
FF
PAUSE/STILL
REC
PLAY
R9001
1200
R9002
2700
R9003
4700
R9004
8200
R9005
51K
R9006
62K

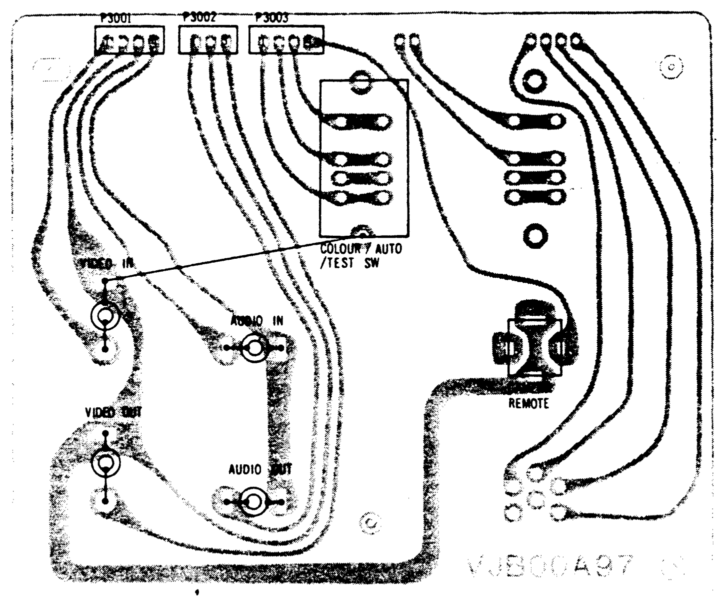
REMOTE CONTROLLER P.C.BOARD (VEP09001D)

(VSQ0329: NV-370-E [Black Type]/-EG/-B;
VSQ0330: NV-370-E [Sylver Type])


REC
S9006
R9006
62K
R9005
51K
R9004
8200
FF
PLAY
REW
S9003
S9007
S9002
R9003 4700
PAUSE/STILL
STOP
S9004
S9001
R9002
2700
R9001
1200

SMALL CIRCUIT BOARDS

REAR JACK P.C.BOARD


P3001
P3002
P3003
COLOUR / AUTO
/TEST SW
VIDEO IN
AUDIO IN
VIDEO OUT
AUDIO OUT
REMOTE
VJB00A97

P3001 (TO MAIN)

1	VIDEO IN	BP3001 - 1
2	GND	BP3001 - 2
3	AUDIO IN	BP3001 - 3
4	GND	BP3001 - 4

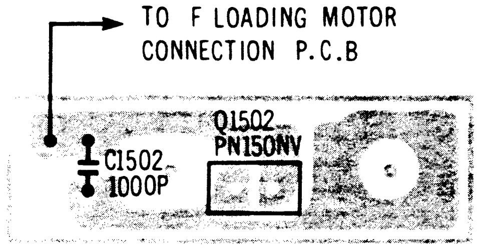
P3002 (TO MAIN)

1	AUDIO OUT	BP3002 - 1
2	GND	BP3002 - 2
3	VIDEO OUT	BP3002 - 3

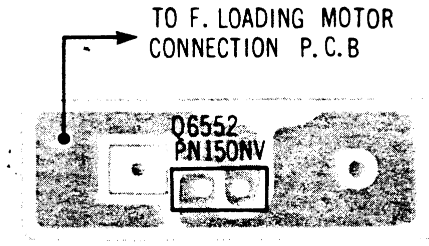
P3003 (TO MAIN)

1	TEST Ⓗ	BP3003 - 1
2	+12V	BP3003 - 2
3	COLOUR Ⓗ	BP3003 - 3
4	CAMERA PAUSE	BP3003 - 4

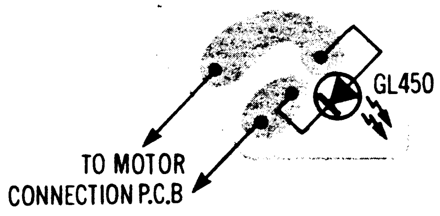
SUPPLY PHOTO Tr. P.C.BOARD (VJB00A94)


TO F LOADING MOTOR
CONNECTION P.C.B
Q1502
PN150NV
C1502
1000P

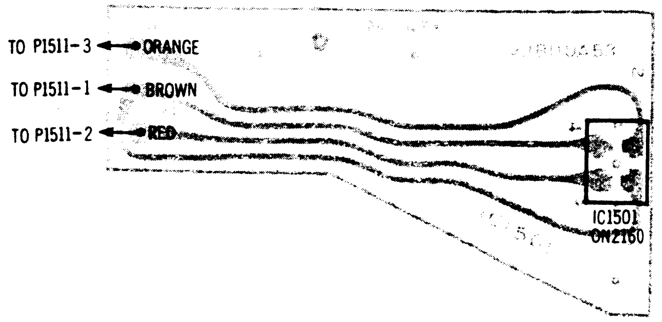
TAKEUP PHOTO Tr. P.C.BOARD (VJB00A56)


TO F. LOADING MOTOR
CONNECTION P.C.B
Q6552
PN150NV

SENSOR LED P.C.BOARD (VJB00976)

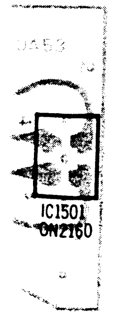

GL450
TO MOTOR
CONNECTION P.C.B

REEL SENSOR P.C.BOARD (VJB00A53)


TO P1511-3
ORANGE
TO P1511-1
BROWN
TO P1511-2
RED
IC1501
ON2160

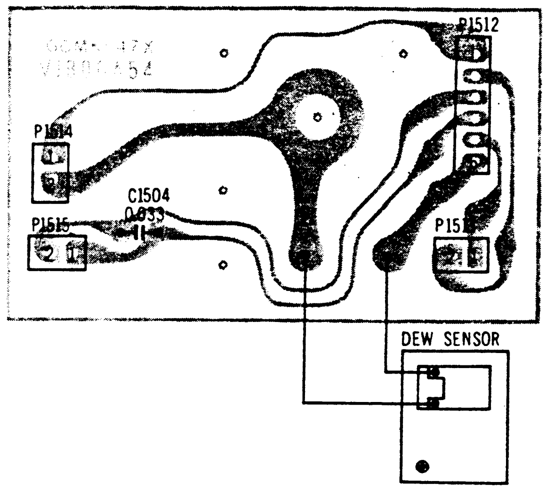
ARD
A56)

A53)



IC1501
ON2160

LOADING MOTOR CONNECTION P.C.BOARD (VJB00A54)



P1512
P1514
C1504
0.033
P1515
P1513
DEW SENSOR

P1512

1	CAPSTAN FG	BP1512 - 1
2	LED GND	BP1512 - 2
3	LOADING Ⓜ (−)	BP1512 - 3
4	LOADING Ⓜ (+)	BP1512 - 4
5	SENSOR LED	BP1512 - 5
6	DEW SENSOR	BP1512 - 6

P1513 (TO SENSOR LED)

1	SENSOR LED
2	GND

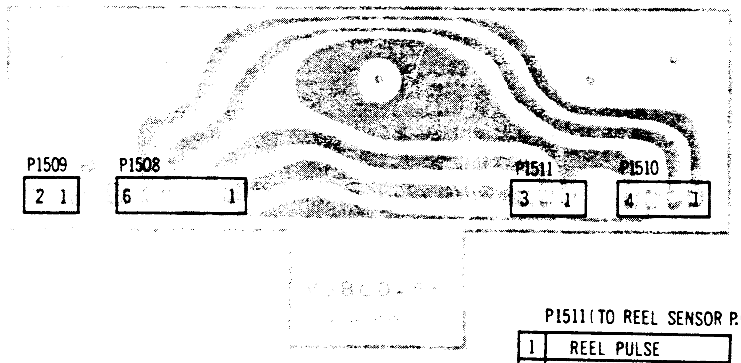
P1514 (TO CAPSTAN MOTOR)

1	CAPSTAN FG
2	FG GND

P1515 (TO LOADING MOTOR)

1	LOADING Ⓜ
2	LOADING Ⓜ

FRONT CONNECTION P.C.BOARD (VJB00A55)



P1509
2 1
P1508
6 1
P1511
3 1
P1510
4 1

P1508

1	PHOTO CP +B	BP1508 - 6
2	REEL PULSE	BP1508 - 5
3	S 3	BP1508 - 4
4	S 2	BP1508 - 3
5	S 1	BP1508 - 2
6	SAFETY TAB	BP1508 - 1

P1509 (TO SAFETY SW)

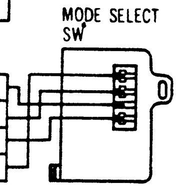
1	SAFETY TAB
2	———

P1511 (TO REEL SENSOR P.C.B)

1	REEL PULSE
2	PHOTO CP +B
3	GND

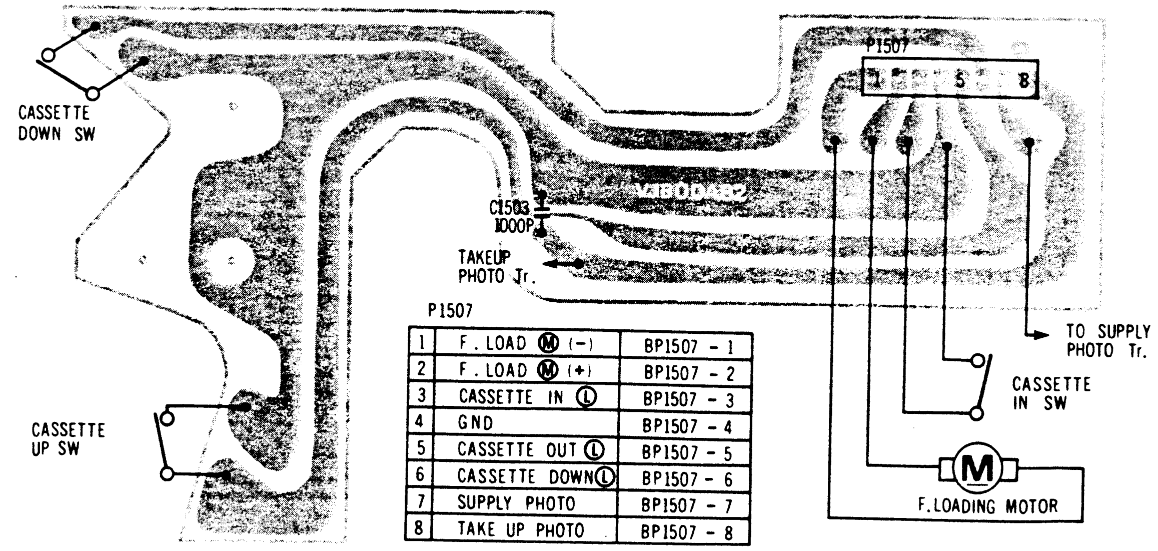
P1510

1	S 1
2	S 2
3	S 3
4	GND



MODE SELECT SW

F. LOADING MOTOR CONNECTION P.C.BOARD (VJB00A82)

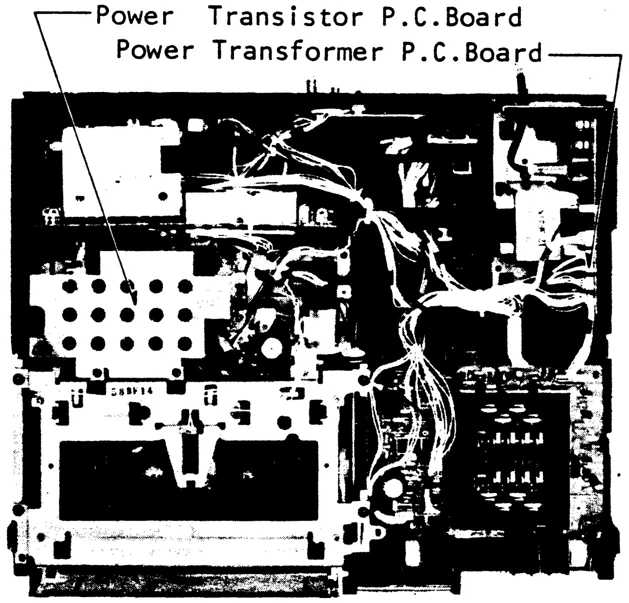


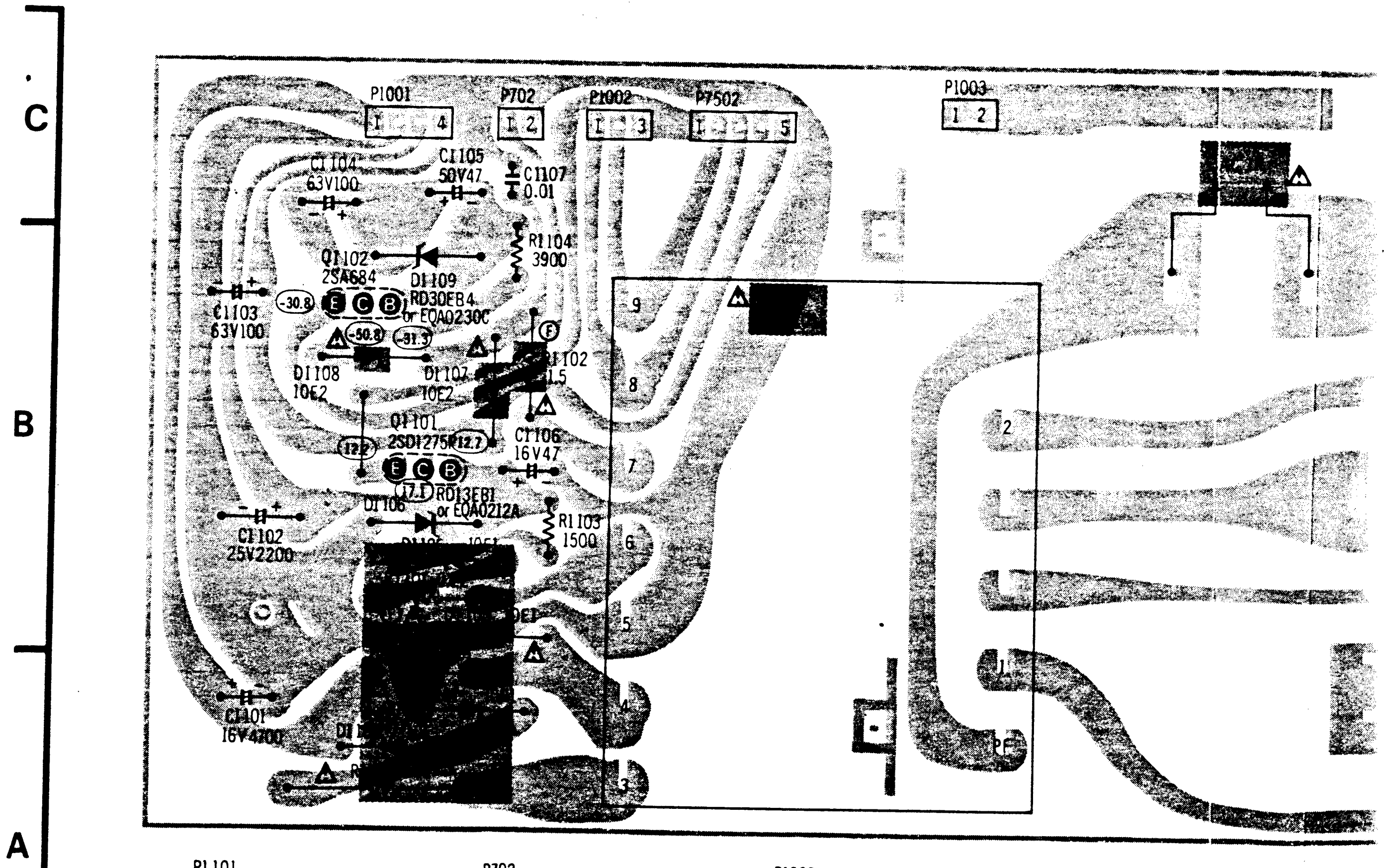
CASSETTE DOWN SW
P1507
1 5 8
VJB00A82
C1503
1000P
TAKEUP PHOTO Tr.
TO SUPPLY PHOTO Tr.
CASSETTE IN SW
CASSETTE UP SW
M
F.LOADING MOTOR

P1507

1	F. LOAD Ⓜ (−)	BP1507 - 1
2	F. LOAD Ⓜ (+)	BP1507 - 2
3	CASSETTE IN Ⓛ	BP1507 - 3
4	GND	BP1507 - 4
5	CASSETTE OUT Ⓛ	BP1507 - 5
6	CASSETTE DOWN Ⓛ	BP1507 - 6
7	SUPPLY PHOTO	BP1507 - 7
8	TAKE UP PHOTO	BP1507 - 8

POWER TRANSFORMER P.C.BOARD (VJB01141: NV-370-B)


Power Transistor P.C.Board
Power Transformer P.C.Board


C
B
A
P1001
1 4
P702
1 2
P1002
1 3
P7502
1 5
P1003
1 2
C1104
63V100
C1105
50V47
C1107
0.01
R1104
3900
Q1102
2SA684
D1109
RD30EB4
or EQA0230C
-30.8
E C B
-50.8
-31.3
C1103
63V100
D1108
10E2
D1107
10E2
F
R1102
1.5
Q1101
2SD1275P
12.2
12.7
E C B
17.1
RD13EB1
or EQA0212A
D1106
C1106
16V47
R1103
1500
C1102
25V2200
C1101
16V4700
9
8
7
6
5
4
3
2
1

P1101

1	UNREG +12V
2	GND
3	UNREG +18V
4	UNREG +45V

P702

1	REG +12V
2	GND

P1002

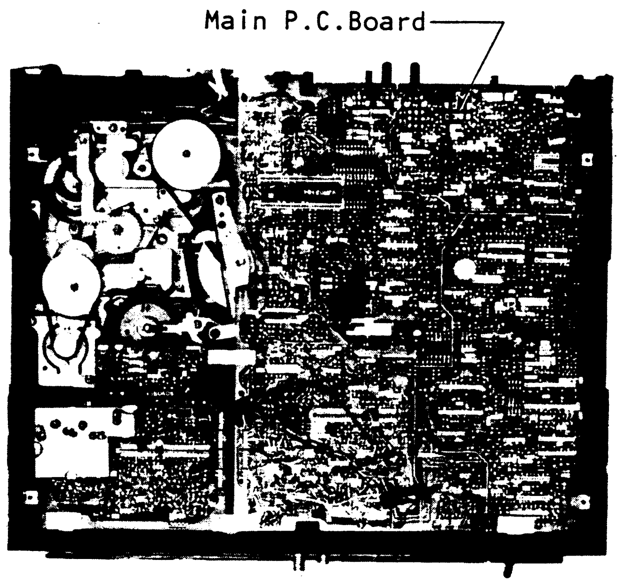
1	AC 3.8V
2	AC 3.8V
3	REG -30V

P7502

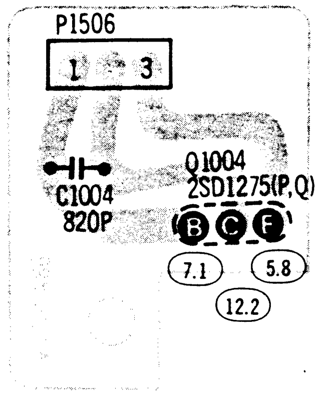
1	TIMER -30V
2	AC 3.8V
3	AC 3.8V
4	GND
5	UNREG +45V

1
2
3

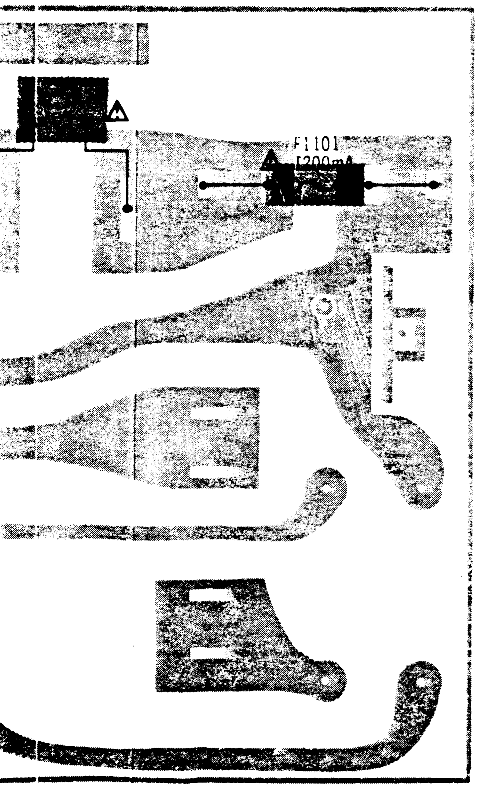
POWER TRANSFORMER P.C.BOARD (VJB01142: NV-370-E/-EG)


Main P.C.Board

POWER TRANSISTOR P.C.BOARD (VJB00A86)


P1506
1
3
C1004
820P
Q1004
2SD1275(P,Q)
B
C
E
7.1
5.8
12.2

Power Trans & Power Supply Schematic	
Q1001	C-6
Q1002	B-6
Q1003	B-6
Q1004	D-7
Q1101	C-3
Q1102	B-3


F1101
T200mA

ER -30V
.8V
.8V
D
G +45V

P1003

1	GND
2	GND

4

P1001

1	UNREG +12V
2	GND
3	UNREG +18V
4	UNREG +45V

P702

1	REG +12V
2	GND

P1002

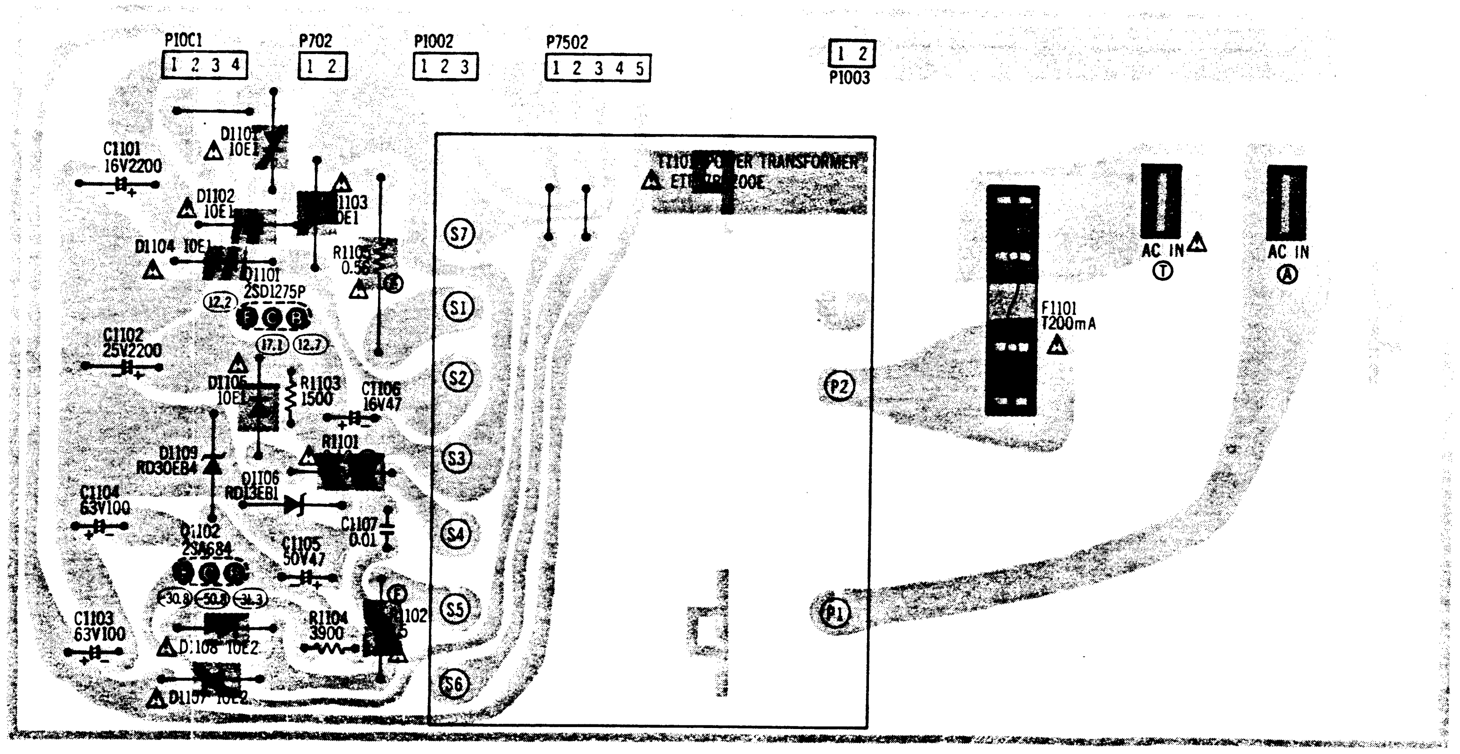
1	AC 3.8V
2	AC 3.8V
3	REG -30V

P7502

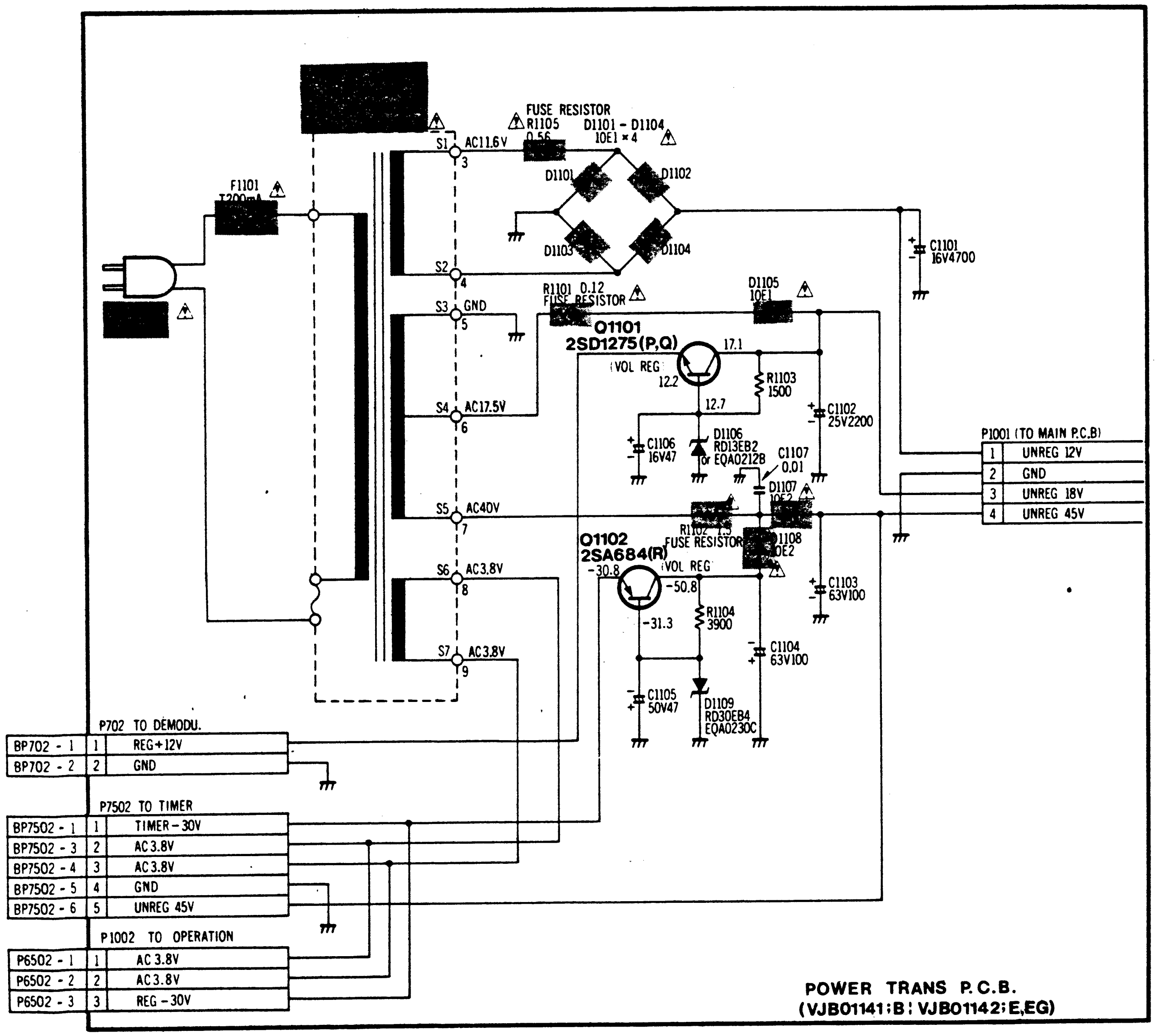
1	TIMER -30V
2	AC 3.8V
3	AC 3.8V
4	GND
5	UNREG +45V

P1003

1	GND
2	GND


P10C1
1 2 3 4
P702
1 2
P1002
1 2 3
P7502
1 2 3 4 5
1 2
P1003
C1101
16V2200
D1107
10E1
D1102
10E1
D1103
10E1
D1104 10E1
Q1101
2SD1275P
12.2
E C B
17.1
12.7
R1105
0.56
C1102
25V2200
D1105
10E1
R1103
1500
C1106
16V47
D1109
RD30EB4
R1101
D1106
RD13EB1
C1104
63V100
Q1102
2SA684
30.8
50.8
31.3
C1105
50V47
C1107
0.01
C1103
63V100
D1108 10E2
R1104
3900
Q1102
D1157 10E2
S7
S1
S2
S3
S4
S5
S6
T1101 POWER TRANSFORMER
P2
P1
F1101
T200mA
AC IN
T
AC IN
A
B
A
1
2
3
4

POWER TRANSFORMER SCHEMATIC DIAGRAM


F1101
T200mA
FUSE RESISTOR
R1105
0.56
D1101 - D1104
10E1 × 4
S1
AC11.6V
3
D1101
D1102
D1103
D1104
C1101
16V4700
S2
4
R1101 0.12
FUSE RESISTOR
D1105
10E1
S3
GND
5
Q1101
2SD1275(P,Q)
(VOL REG)
17.1
12.2
12.7
R1103
1500
C1102
25V2200
S4
AC17.5V
6
C1106
16V47
D1106
RD13EB2
or EQA0212B
C1107
0.01
D1107
10E2
P1001 (TO MAIN P.C.B)
1 UNREG 12V
2 GND
3 UNREG 18V
4 UNREG 45V
S5
AC40V
7
R1102 1.5
FUSE RESISTOR
D1108
10E2
Q1102
2SA684(R)
(VOL REG)
-30.8
-50.8
-31.3
R1104
3900
C1103
63V100
C1104
63V100
S6
AC3.8V
8
S7
AC3.8V
9
C1105
50V47
D1109
RD30EB4
EQA0230C
P702 TO DEMODU.
BP702 - 1 1 REG+12V
BP702 - 2 2 GND
P7502 TO TIMER
BP7502 - 1 1 TIMER - 30V
BP7502 - 3 2 AC3.8V
BP7502 - 4 3 AC3.8V
BP7502 - 5 4 GND
BP7502 - 6 5 UNREG 45V
P1002 TO OPERATION
P6502 - 1 1 AC 3.8V
P6502 - 2 2 AC3.8V
P6502 - 3 3 REG - 30V

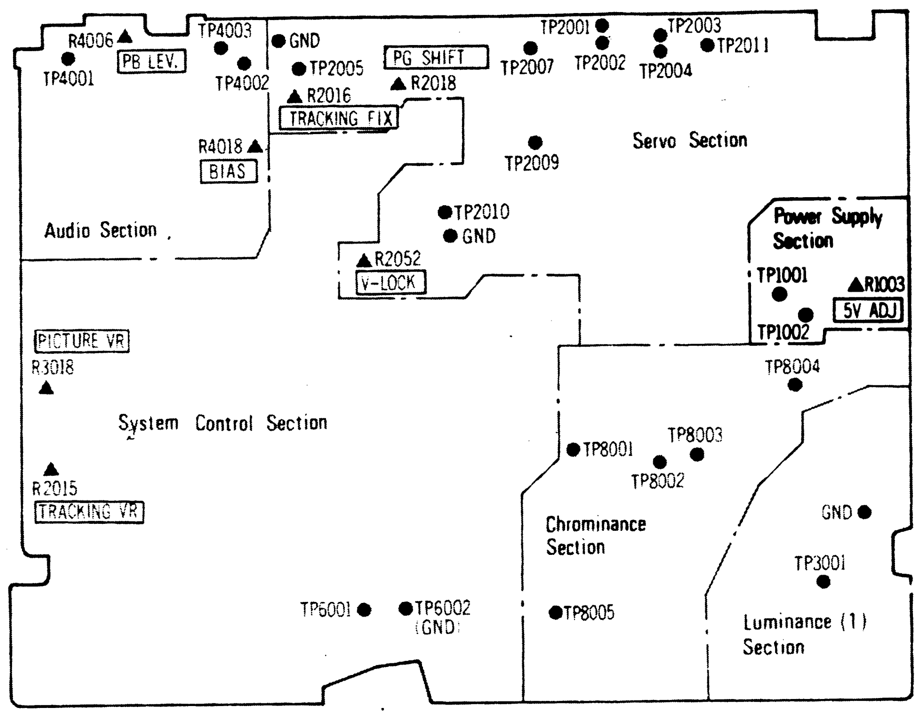
POWER TRANS P.C.B.
(VJB01141;B; VJB01142;E,EG)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

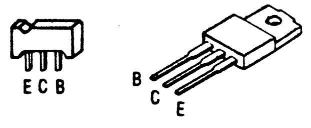
MAIN P.C.BOARD UNIT (VEP03194E: NV-370-E/-B; VEP03194B: NV-370-EG)

— Power Supply Section —

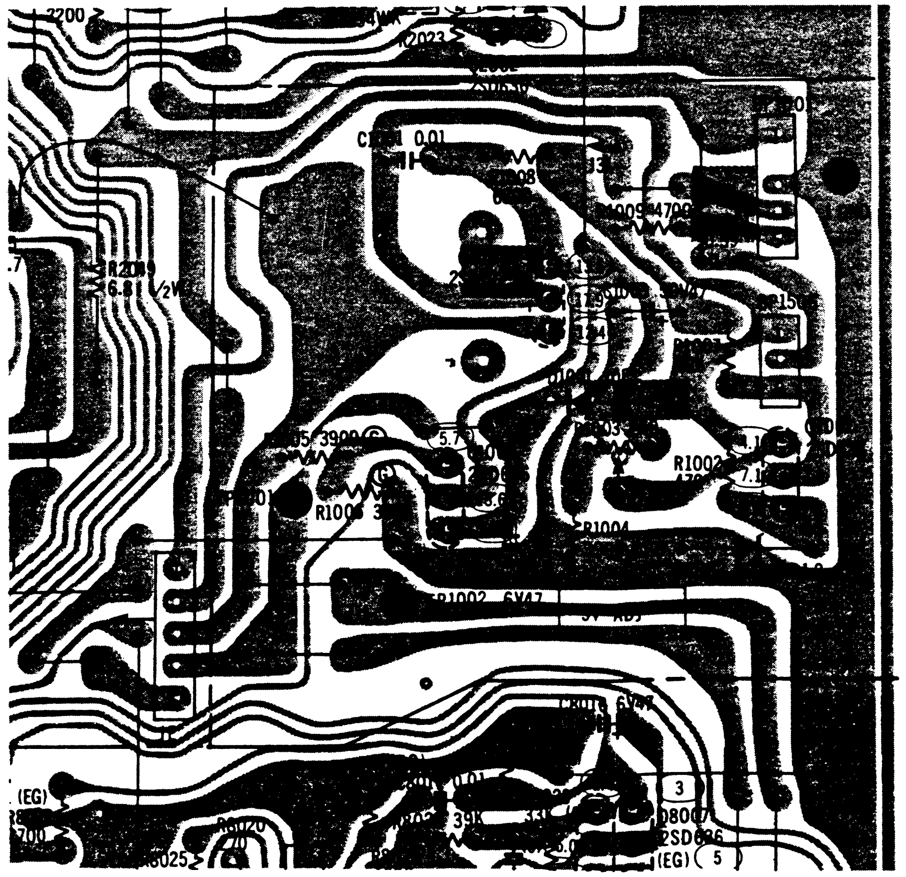
MAIN P.C.B UNIT


R4006
TP4001
PB LEV.
TP4003
TP4002
GND
TP2005
R2016
TRACKING FIX
PG SHIFT
R2018
TP2001
TP2007
TP2002
TP2003
TP2004
TP2011
R4018
BIAS
TP2009
Servo Section
Audio Section
TP2010
GND
R2052
V-LOCK
Power Supply Section
TP1001
R1003
5V ADJ
TP1002
PICTURE VR
R3018
TP8004
System Control Section
TP8001
TP8003
TP8002
R2015
TRACKING VR
Chrominance Section
GND
TP3001
TP6001
TP6002
(GND)
TP8005
Luminance (1) Section

MAIN P.C. BOARD POWER SUPPLY SECTION TRANSISTORs INFORMATION



2SD636 2SD1275


2200
R2023
R1004
(EG)

NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165

9	HES
10	M1

BP1001 (TO TRANS P C B)

1	UNREG 12V
2	——
3	GND
4	UNREG 18V
5	UNREG 45V

BP1506 (TO CYL HEATER)

1	E (+6V)
2	C (6.6V)
3	B (UN REG 14V)

BP3002 (TO REAR JACK)

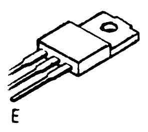
1	AUDIO OUT
2	GND
3	VIDEO OUT

BP3005 (TO RF CON)

1	GND
2	AUDIO OUT

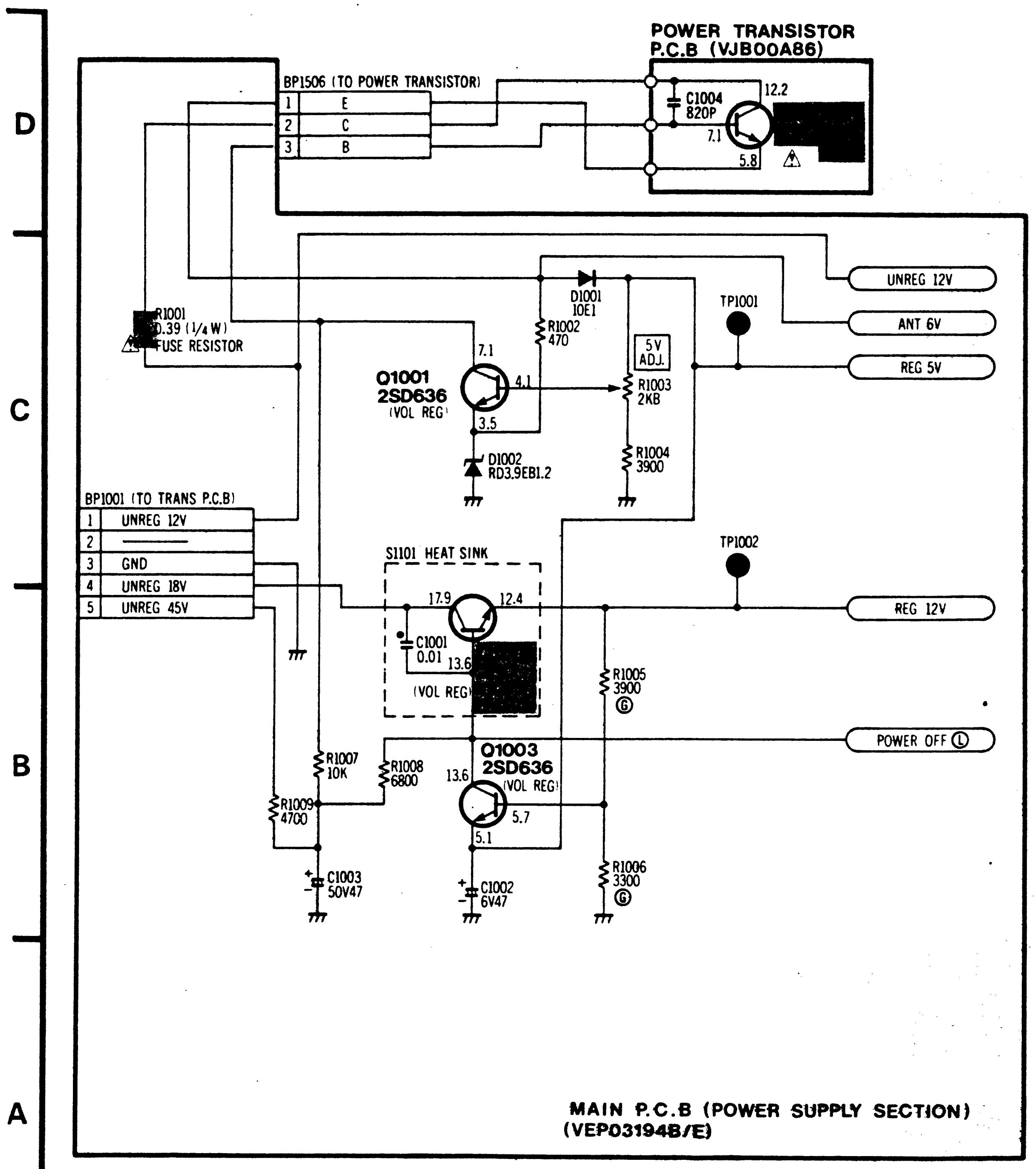
G)

OWER SUPPLY
Rs INFORMATION



2SD1275

POWER SUPPLY SCHEMATIC DIAGRAM

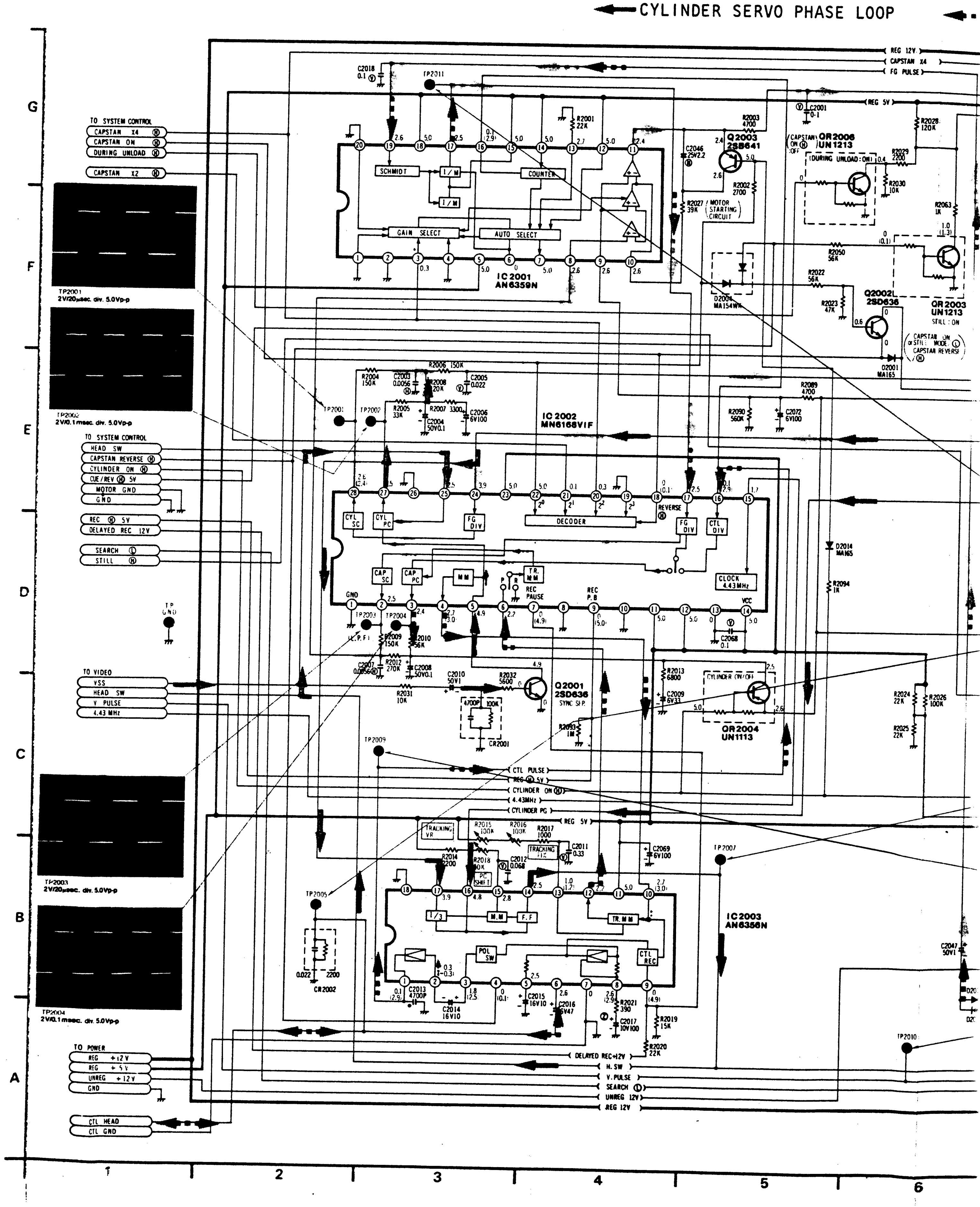

D
C
B
A
POWER TRANSISTOR
P.C.B (VJB00A86)
BP1506 (TO POWER TRANSISTOR)
1 E
2 C
3 B
C1004
820P
12.2
7.1
5.8
[redacted]
UNREG 12V
ANT 6V
REG 5V
TP1001
D1001
10E1
R1002
470
5V ADJ.
R1003
2KB
R1004
3900
R1001
0.39 (1/4 W)
FUSE RESISTOR
Q1001
2SD636
(VOL REG)
7.1
4.1
3.5
D1002
RD3.9EB1.2
BP1001 (TO TRANS P.C.B)
1 UNREG 12V
2
3 GND
4 UNREG 18V
5 UNREG 45V
S1101 HEAT SINK
17.9
12.4
C1001
0.01
13.6
(VOL REG)
[redacted]
TP1002
REG 12V
R1005
3900
Ⓖ
POWER OFF Ⓛ
Q1003
2SD636
(VOL REG)
13.6
5.7
5.1
R1007
10K
R1008
6800
R1009
4700
C1003
50V47
C1002
6V47
R1006
3300
Ⓖ
MAIN P.C.B (POWER SUPPLY SECTION)
(VEP03194B/E)

THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH PAL COLOUR SIGNAL.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

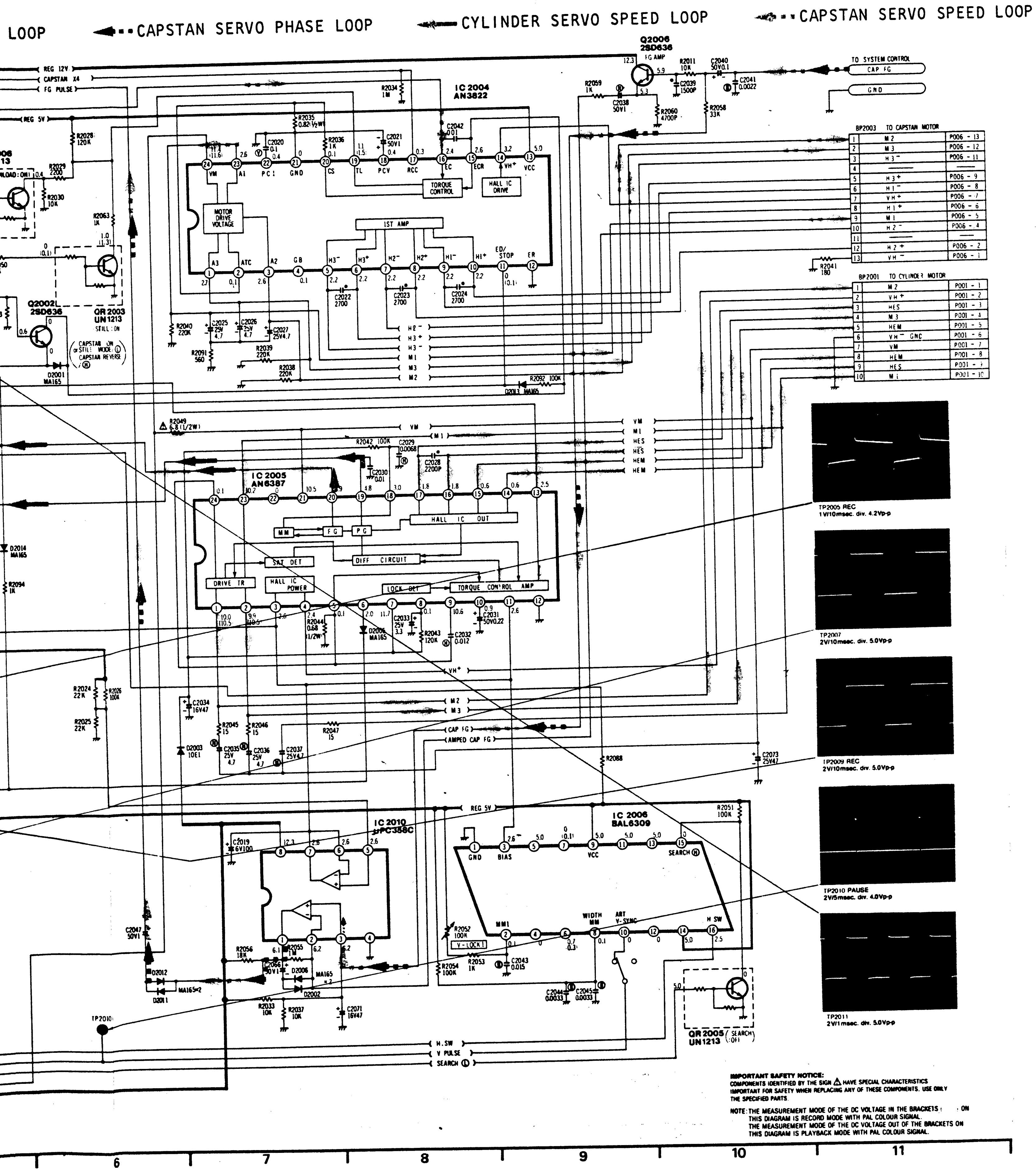
1 2 3

SERVO SCHEMATIC DIAGRAM



CYLINDER SERVO PHASE LOOP
G
F
E
D
C
B
A
1
2
3
4
5
6
TO SYSTEM CONTROL
CAPSTAN X4
CAPSTAN ON
DURING UNLOAD
CAPSTAN X2
TP2001
2V/20µsec. div. 5.0Vp-p
TP2002
2V/0.1msec. div. 5.0Vp-p
TP2003
2V/20µsec. div. 5.0Vp-p
TP2004
2V/0.1msec. div. 5.0Vp-p
HEAD SW
CAPSTAN REVERSE
CYLINDER ON
CUE/REV 5V
MOTOR GND
GND
REC 5V
DELAYED REC 12V
SEARCH
STILL
TP GND
TO VIDEO
VSS
HEAD SW
V PULSE
4.43 MHz
TO POWER
REG +12V
REG +5V
UNREG +12V
GND
CTL HEAD
CTL GND
REG 12V
CAPSTAN X4
FG PULSE
REG 5V
IC2001
AN6359N
SCHMIDT
COUNTER
GAIN SELECT
AUTO SELECT
Q2003
2SB641
MOTOR STARTING CIRCUIT
QR2006
UN1213
DURING UNLOAD: ON
Q2002
2SD636
QR2003
UN1213
STILL: ON
CAPSTAN ON (STILL MODE)
CAPSTAN REVERSE
D2001
MA165
D2006
MA154WK
IC2002
MN6168VIF
CYL SC
CYL PC
FG DIV
DECODER
REVERSE
CTL DIV
CAP SC
CAP PC
M.M
TR. M.M
REC PAUSE
REC P.B
CLOCK 4.43MHz
VCC
L.P.F.
Q2001
2SD636
SYNC SEP.
CR2001
QR2004
UN1113
CYLINDER ON/OFF
D2014
MA165
CTL PULSE
REG 5V
CYLINDER ON
4.43MHz
CYLINDER PG
IC2003
AN6356N
TRACKING VR
TRACKING
PC
1/3
M.M
F.F
TR. M.M
POL SW
CTL REC
CR2002
TP2005
TP2007
TP2009
TP2010
TP2011
DELAYED REC+12V
H. SW
V. PULSE
SEARCH
UNREG 12V
REG 12V

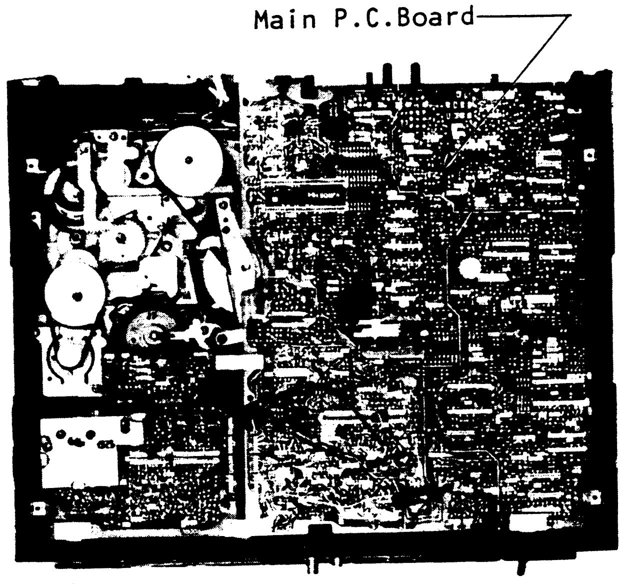
3-8


LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CAPSTAN SERVO SPEED LOOP
Q2006 2SD636
IC 2004 AN3822
IC 2005 AN6387
IC 2010 μPC358C
IC 2006 BAL6309
Q2002 2SD636
QR 2003 UN1213
QR 2005 UN1213
TO SYSTEM CONTROL
BP2003 TO CAPSTAN MOTOR
BP2001 TO CYLINDER MOTOR
TORQUE CONTROL
HALL IC DRIVE
MOTOR DRIVE VOLTAGE
1ST AMP
HALL IC OUT
DIFF CIRCUIT
DRIVE TR
HALL IC POWER
LOCK DET
TORQUE CONTROL AMP
TP2005 REC
1V/10msec. div. 4.2Vp-p
TP2007
2V/10msec. div. 5.0Vp-p
TP2009 REC
2V/10msec. div. 5.0Vp-p
TP2010 PAUSE
2V/5msec. div. 4.0Vp-p
TP2011
2V/1msec. div. 5.0Vp-p
6
7
8
9
10
11

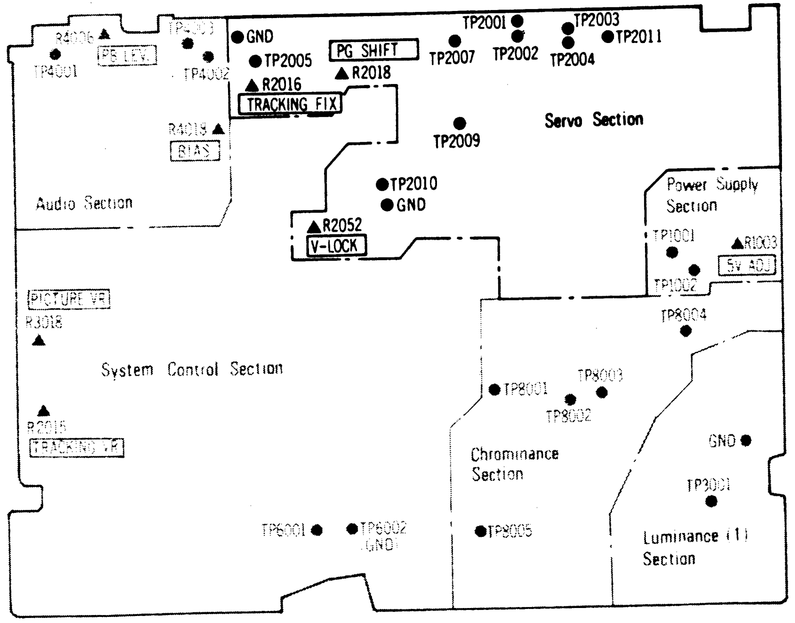
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SPECIFIED PARTS.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

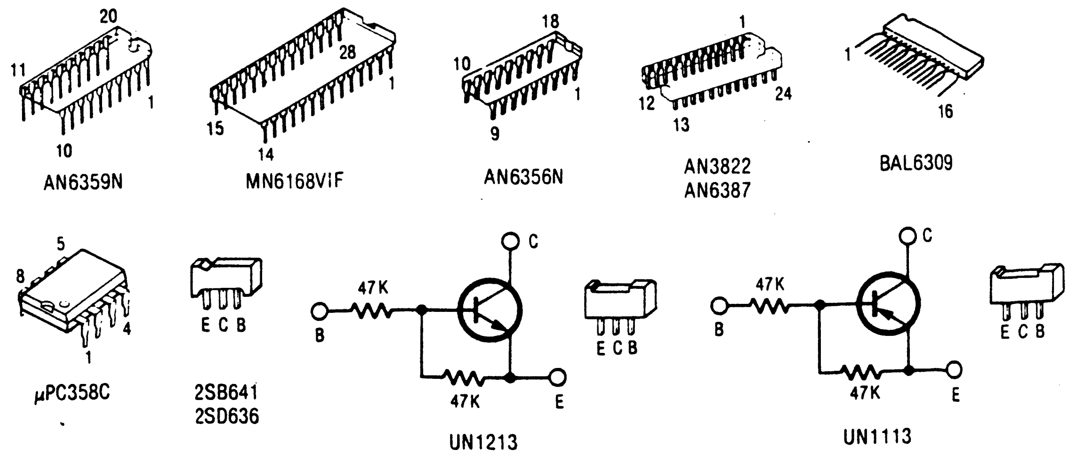
Servo Schematic	
Q2001	C-4
Q2002	F-6
Q2003	G-5
Q2006	G-10
QR2003	F-6
QR2004	C-5
QR2005	A-10
QR2006	G-5
IC2001	F-3
IC2002	E-4
IC2003	B-4
IC2004	G-8
IC2005	D-8
IC2006	B-9
IC2010	B-7


Main P.C.Board

MAIN P.C.B UNIT

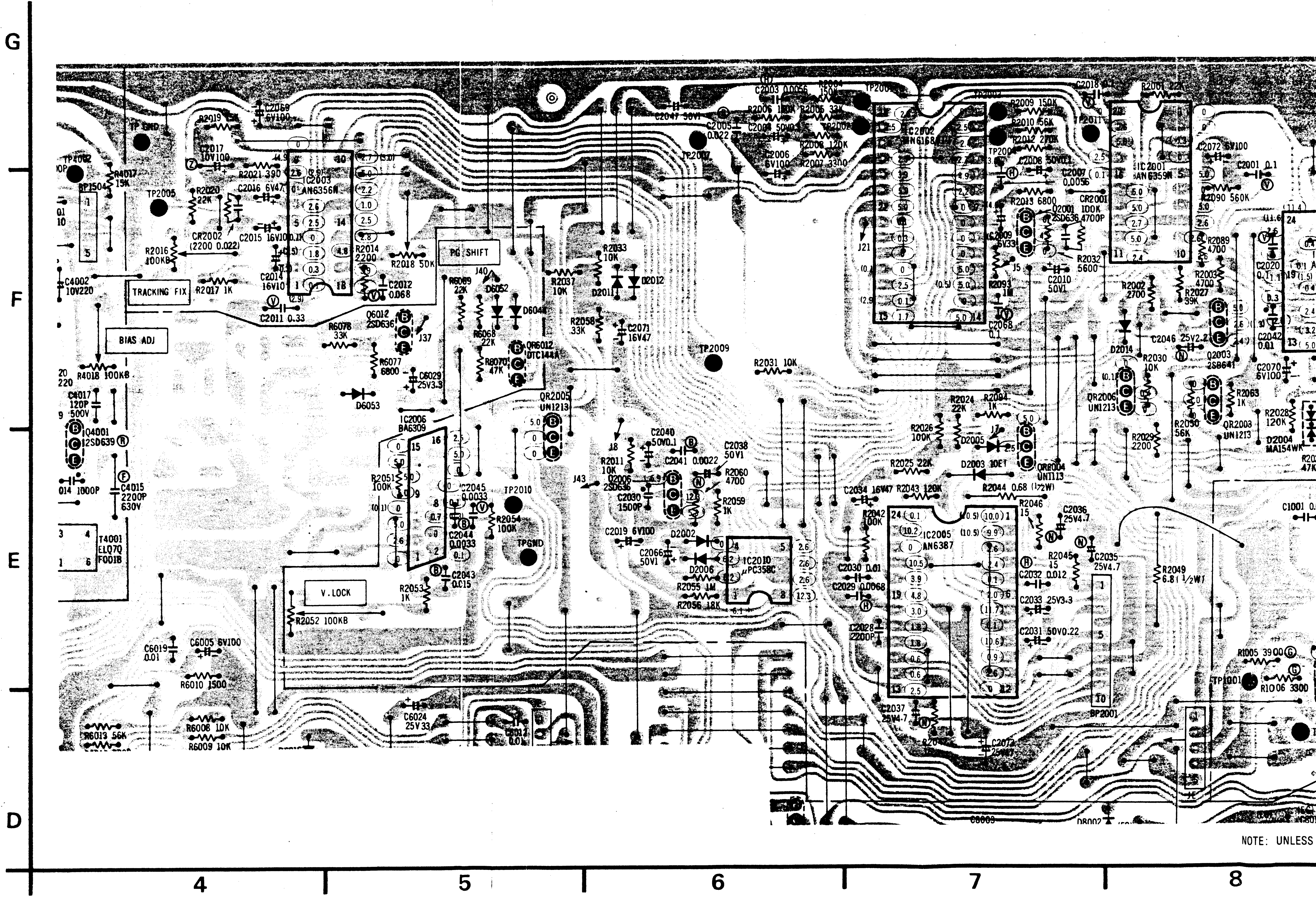

GND
TP2005
PG SHIFT
R2016
R2018
TRACKING FIX
TP2001
TP2003
TP2011
TP2007
TP2002
TP2004
TP4001
TP4002
PB LEV
R4018
BIAS
TP2009
Servo Section
Audio Section
TP2010
GND
R2052
V-LOCK
Power Supply Section
TP1001
R1003
5V ADJ
TP1002
TP8004
PICTURE VR
R3018
System Control Section
TP8001
TP8003
TP8002
R2015
TRACKING VR
Chrominance Section
GND
TP3001
TP6001
TP6002
GND
TP8005
Luminance (1) Section

MAIN P.C. BOARD SERVO SECTION ICs & TRANSISTORs INFORMATION

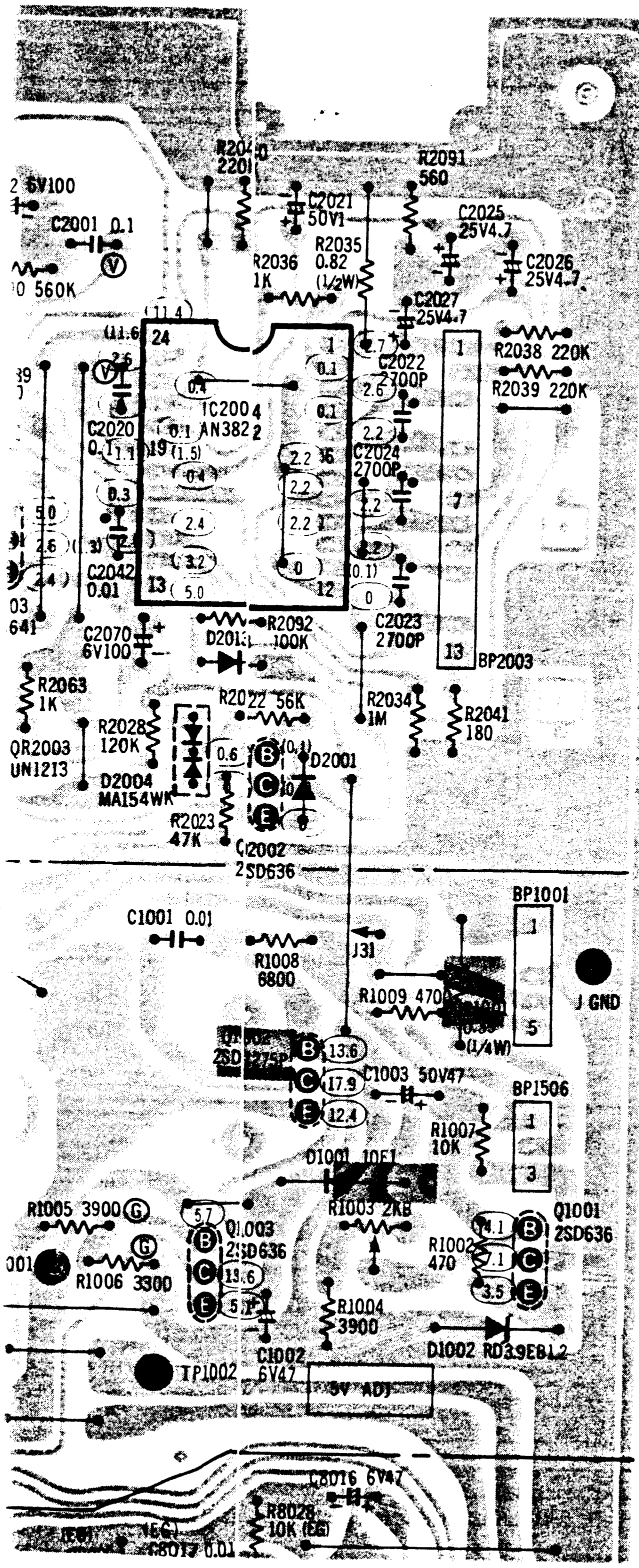

20
11
1
10
AN6359N
28
15
14
1
MN6168VIF
18
10
1
9
AN6356N
1
12
24
13
AN3822
AN6387
1
16
BAL6309
5
8
4
1
μPC358C
E C B
2SB641
2SD636
47K
B
C
47K
E
E C B
UN1213
47K
B
C
47K
E
E C B
UN1113

MAIN P.C.BOARD UNIT (VEP03194E: NV-370-E/-B; VEP03194B: NV-370-EG) — Servo Section —

Main C.B.A. (Servo Section)	
Q2001	F-7
Q2002	F-8
Q2003	F-8
Q2006	E-6
QR2003	F-8
QR2004	F-7
QR2005	F-5
QR2006	F-7
IC2001	G-8
IC2002	G-7
IC2003	F-4
IC2004	F-8
IC2005	E-7
IC2006	E-5
IC2010	E-10


G
F
E
D
4
5
6
7
8
TRACKING FIX
BIAS ADJ
PG SHIFT
V.LOCK
TP GND
TP2005
TP4002
TP2009
TP2010
TPGND
TP2007
TP2001
TP1001
IC2003 AN6356N
IC2002 AN6168
IC2001 AN6359N
IC2005 AN6387
IC2006 BA6309
IC2010 μPC358C
QR2005 UN1213
QR2006 UN1213
QR2003 UN1213
QR2004 UN1113
QR6012 DTC144A
Q2001 2SD636
Q2006 2SD636
Q2003 2SB641
Q6012 2SD636
Q4001 2SD639
T4001 ELQ7QF001B
R2016 100KB
R2018 50K
R2052 100KB
R4018 100KB
BP1504
BP2001
D2014
D2004 MA154WK

NOTE: UNLESS


R2090 220
R2091 560
C2021 50V1
C2025 25V4.7
C2026 25V4.7
R2035 0.82 (1/2W)
R2036 1K
C2027 25V4.7
6V100
C2001 0.1
560K
IC2004 AN3822
C2022 2700P
C2024 2700P
C2023 2700P
R2038 220K
R2039 220K
BP2003
C2020 0.1
C2042 0.01
C2070 6V100
D2013
R2092 100K
R2063 1K
R2028 120K
QR2003 UN1213
D2004 MA154WK
R2022 56K
R2034 1M
R2041 180
D2001
R2023 47K
Q2002 2SD636
C1001 0.01
R1008 6800
J31
R1009 470
(1/4W)
BP1001
J GND
Q1002 2SD1275P
C1003 50V47
BP1506
R1007 10K
D1001 10E1
R1003 2KB
R1005 3900
R1006 3300
Q1003 2SD636
Q1001 2SD636
R1002 470
R1004 3900
D1002 RD3.9EB1,2
TP1002
C1002 6V47
5V ADJ
C8016 6V47
R8028 10K
C8017 0.01

BP2003 (TO CAPTAN)

1	M2
2	M3
3	H3 −
4	———
5	H3 +
6	H1 −
7	VH +
8	H1 −
9	M1
10	H2
11	———
12	H2 +
13	VH −

BP2001 (TO CYLINDER)

1	M2
2	VH +
3	HES
4	M3
5	HEM
6	VH − GND
7	VM
8	$\overline{\text{HEM}}$
9	$\overline{\text{HES}}$
10	M1

BP1001 (TO TRANS P C B)

1	UNREG 12V
2	———
3	GND
4	UNREG 18V
5	UNREG 45V

BP1506 (TO CYL HEATER)

1	E (+6V)
2	C (6.6V
3	B (UN REG 14V

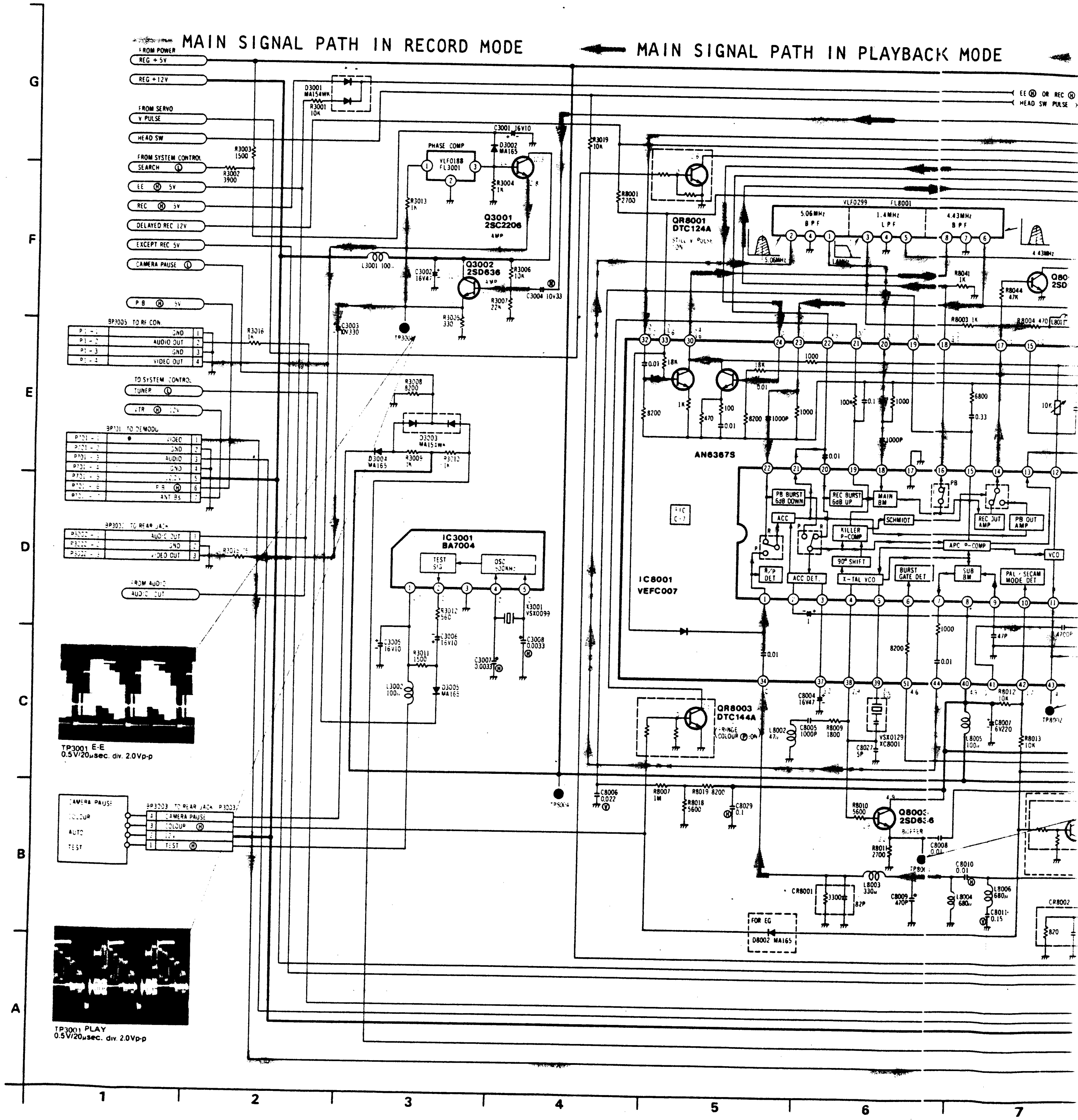
BP3002 (TO REAR JACK

1	AUDIO OUT
2	GND
3	VIDEO OUT

NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165

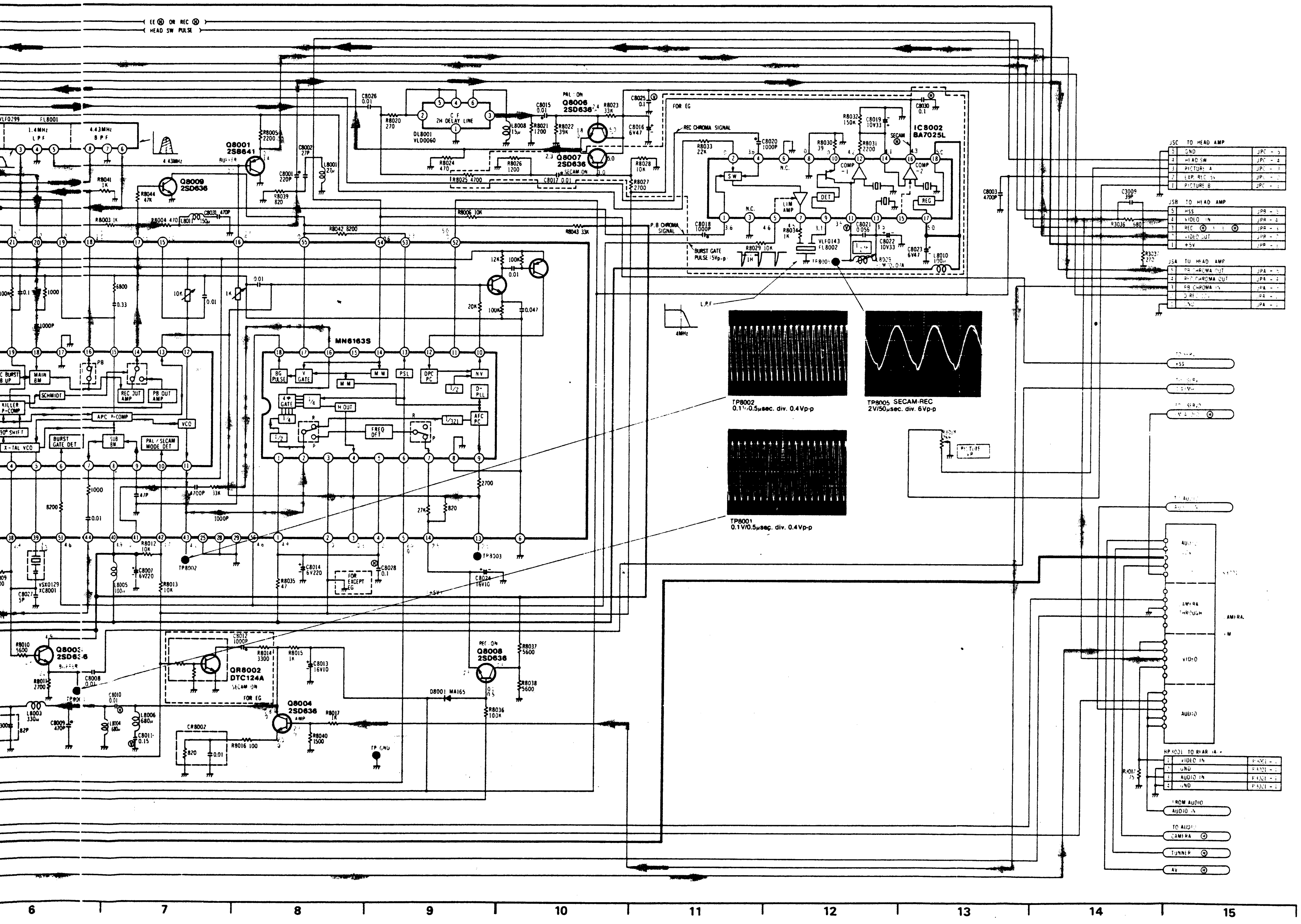
3 9

LUMINANCE (1) & CHROMINANCE SCHEMAITC DIAGRAM


MAIN SIGNAL PATH IN RECORD MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
FROM POWER
REG +5V
REG +12V
FROM SERVO
V PULSE
HEAD SW
FROM SYSTEM CONTROL
SEARCH
EE 5V
REC 5V
DELAYED REC 12V
EXCEPT REC 5V
CAMERA PAUSE
PB 5V
TO SYSTEM CONTROL
TUNER
VTR 12V
FROM AUDIO
AUDIO OUT
AUDIO OUT
VIDEO OUT
GND
PHASE COMP
Q3001
2SC2206
AMP
Q3002
2SD636
AMP
IC3001
BA7004
QR8001
DTC124A
QR8003
DTC144A
AN6367S
IC8001
VEFC007
Q8003
2SD636
BUFFER
5.06MHz BPF
1.4MHz LPF
4.43MHz BPF
VLF0299 FL8001
PB BURST 6dB DOWN
REC BURST 6dB UP
MAIN BM
SCHMIDT
ACC
KILLER P-COMP
REC OUT AMP
PB OUT AMP
APC P-COMP
VCO
90° SHIFT
ACC DET
X-TAL VCO
BURST GATE DET
SUB BM
PAL SECAM MODE DET
FOR EG
D8002 MA165
EE OR REC
HEAD SW PULSE
CAMERA PAUSE
COLOUR
AUTO
TEST
TP3001 E-E
0.5V/20μsec. div. 2.0Vp-p
TP3001 PLAY
0.5V/20μsec. div. 2.0Vp-p
G
F
E
D
C
B
A
1
2
3
4
5
6
7

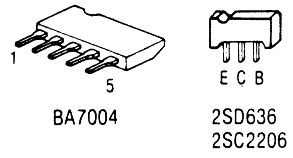
IAGRAM

PLAYBACK MODE ◄-- 5.06MHz PHASE ROTATIONAL IN RECORD MODE ◄•• 5.06MHz PHASE ROTATIONAL IN PLAYBACK MODE

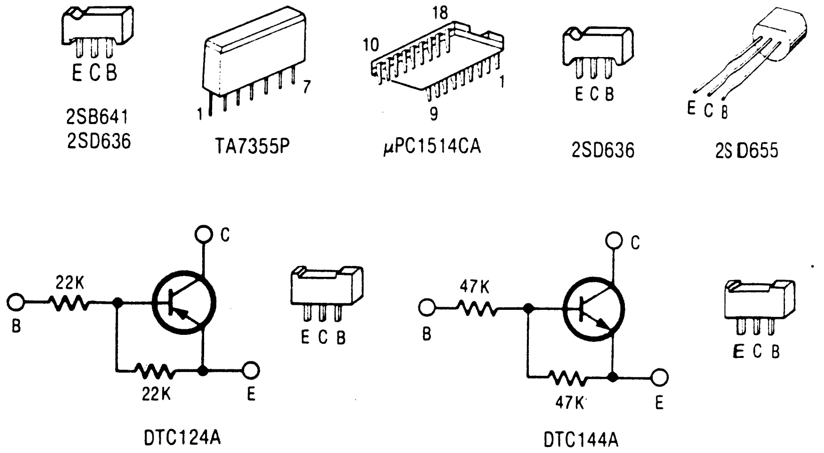

EE ⓐ OR REC ⓐ
HEAD SW PULSE
FL8001
1.4MHz L P F
4.43MHz B P F
Q8001 2SB641
Q8009 2SD636
Q8006 2SD636
Q8007 2SD636
DL8001 VLD0060
2H DELAY LINE
IC8002 BA7025L
FOR EG
REC CHROMA SIGNAL
P.B CHROMA SIGNAL
BURST GATE PULSE 5Vp-p
LIM AMP
DET
COMP
REG
VLF0143 FL8002
MN6163S
BG PULSE
V GATE
M M
PSL
DPC PC
NV
H OUT
FREQ DET
AFC PC
D-PLL
BURST GATE DET
SUB BM
PAL/SECAM MODE DET
REC OUT AMP
PB OUT AMP
SCHMIDT
APC P-COMP
VCO
X-TAL VCO
L.P.F
4MHz
TP8002
0.1V/0.5μsec. div. 0.4Vp-p
TP8005 SECAM-REC
2V/50μsec. div. 6Vp-p
TP8001
0.1V/0.5μsec. div. 0.4Vp-p
TP8003
Q8003 2SD636
QR8002 DTC124A
SECAM ON
FOR EG
Q8004 2SD636
Q8008 2SD636
D8001 MA165
TP GND
JSC TO HEAD AMP
JSB TO HEAD AMP
JSA TO HEAD AMP
CAMERA THROUGH
VIDEO
AUDIO
TO AUDIO
FROM AUDIO
AUDIO IN
CAMERA
TUNNER
AV
6
7
8
9
10
11
12
13
14
15

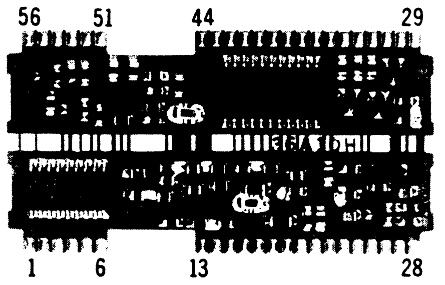
Luminance Chrominance Schematic diagram.	
Q3001 Q3002	E-4 F-3
Q8001 Q8003 Q8004 Q8006 Q8007 Q8008	F-8 B-6 B-8 F-10 F-10 B-9
QR8001 QR8002 QR8003	F-5 B-7 C-5
IC3001 IC8001 IC8002	D-3 D-5 F-13

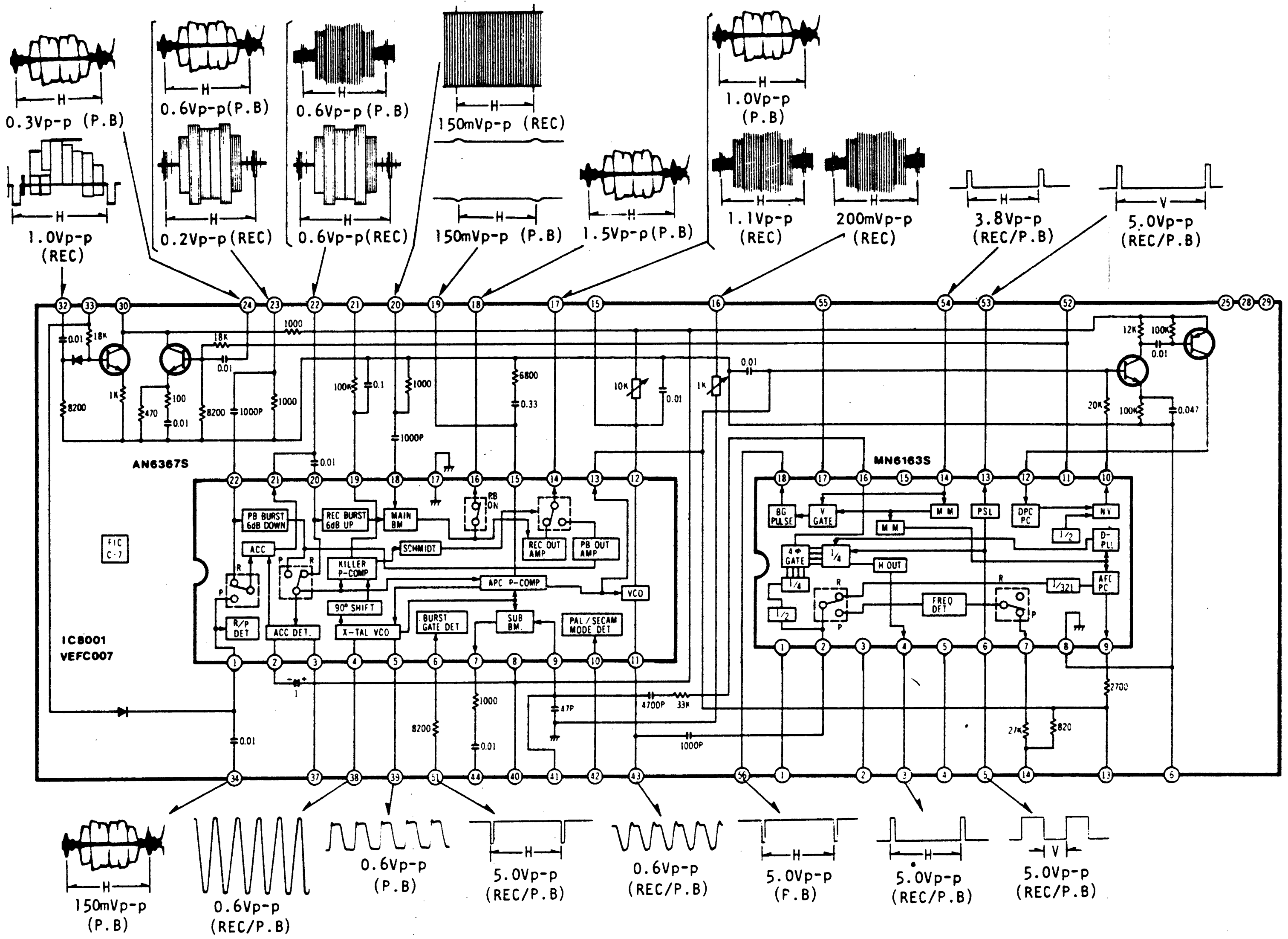
MAIN P.C. BOARD LUMINANCE [1] SECTION ICs & TRANSISTORs INFORMATION


1
5
BA7004
E C B
2SD636
2SC2206

MAIN P.C. BOARD CHROMINANC SECTION ICs & TRANSISTORs INFORMATION

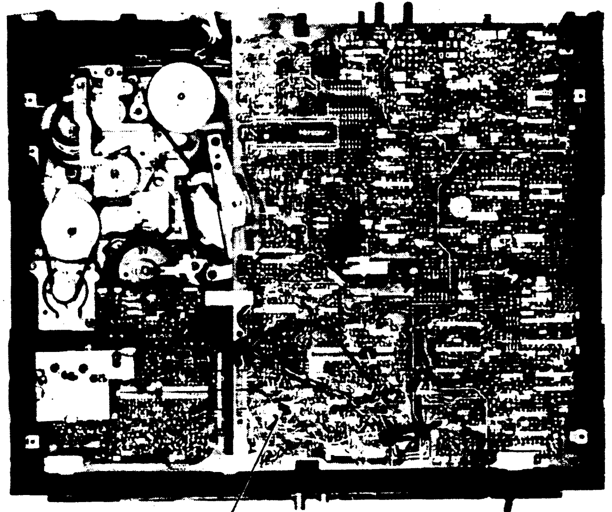

E C B
2SB641
2SD636
1
7
TA7355P
18
10
1
9
μPC1514CA
E C B
2SD636
E C B
2S D655
C
22K
B
22K
E
E C B
DTC124A
C
47K
B
47K
E
E C B
DTC144A

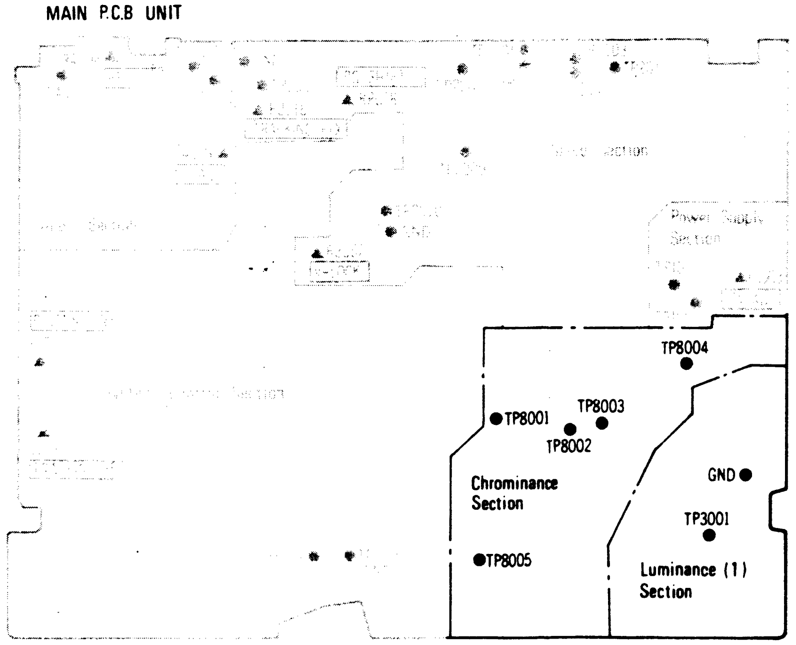

56
51
44
29
1
6
13
28


0.3Vp-p (P.B)
1.0Vp-p (REC)
0.6Vp-p(P.B)
0.2Vp-p(REC)
0.6Vp-p (P.B)
0.6Vp-p(REC)
150mVp-p (REC)
150mVp-p (P.B)
1.5Vp-p(P.B)
1.0Vp-p (P.B)
1.1Vp-p (REC)
200mVp-p (REC)
3.8Vp-p (REC/P.B)
5.0Vp-p (REC/P.B)
AN6367S
MN6163S
IC8001 VEFC007
150mVp-p (P.B)
0.6Vp-p (REC/P.B)
0.6Vp-p (P.B)
5.0Vp-p (REC/P.B)
0.6Vp-p (REC/P.B)
5.0Vp-p (F.B)
5.0Vp-p (REC/P.B)
5.0Vp-p (REC/P.B)

Main C.B.A. (Luminance (1) Section)	
Q3001	B-9
Q3002	B-8
IC3001	A-9

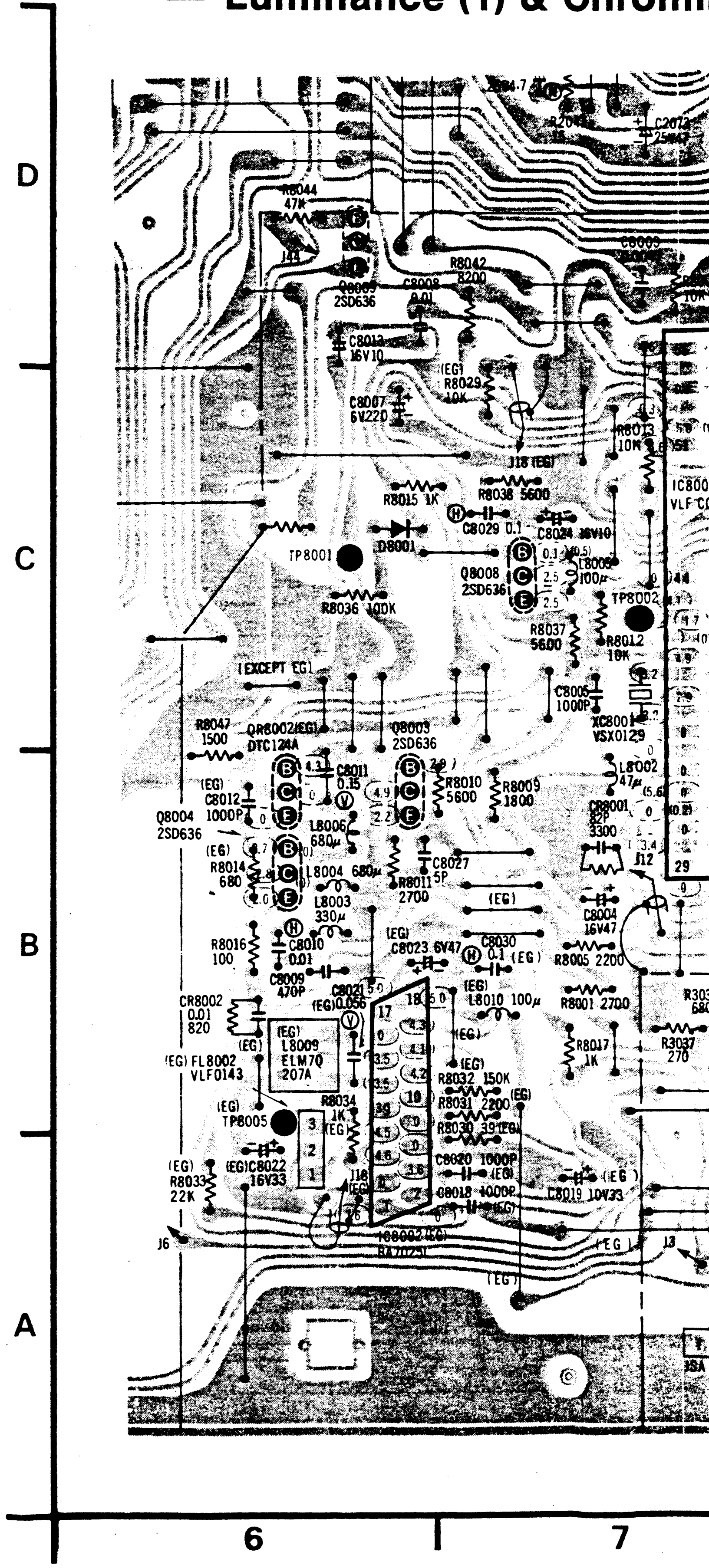
Main C.B.A. (Chrominance Section)	
Q8001	B-7
Q8003	C-6
Q8004	B-6
Q8006	D-9
Q8007	D-9
Q8008	C-7
QR8001	C-8
QR8002	C-6
QR8003	B-8
IC8001	C-7
IC8002	A-6


Main P.C.Board


MAIN P.C.B UNIT
TP8004
TP8001
TP8003
TP8002
Chrominance Section
GND
TP3001
TP8005
Luminance (1) Section

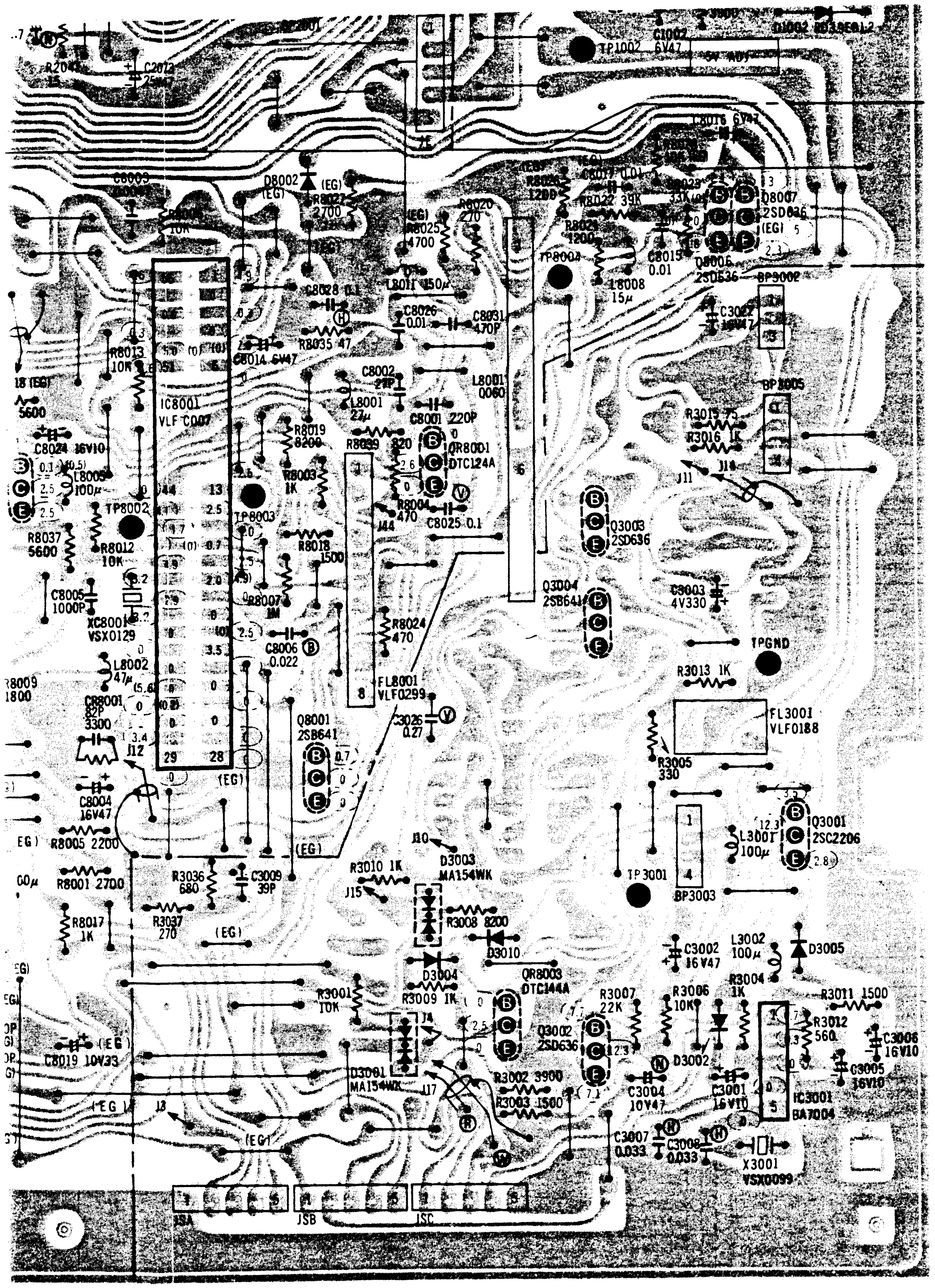
MAIN P.C.BOARD UNIT (VEP0319

— Luminance (1) & Chromi


D
C
B
A
6
7
TP8001
TP8002
TP8005
EXCEPT EG
Q8003 2SD636
Q8004 2SD636
Q8008 2SD636
QR8002(EG) DTC124A
XC8001 VSX0129
FL8002 VLF0143
L8009 ELM70207A
IC8002(EG)

(VEP03194E: NV-370-E/-B; VEP03194B: NV-370-EG)

& Chrominance Section —


IC8001
VLF C007
IC3001
BA7004
FL8001
VLF0299
FL3001
VLF0188
TP1002
TP8002
TP8003
TP8004
TP3001
TPGND
BP3002
BP3005
BP3003
JSA
JSB
JSC
X3001
VSX0099
XC8001
VSX0129

BP3002 TO REAR JACK

1	AUDIO OUT
2	GND
3	VIDEO OUT

BP3005 TO RF CON

1	GND
2	AUDIO OUT
3	GND
4	VIDEO OUT

BP3003 TO REAR JACK

1	TEST Ⓗ
2	12V
3	COLOUR Ⓗ
4	CAMERA PAUSE

JSC

1	PICTURE B
2	EXP. REC 5V
3	PICTURE A
4	HEAD SW
5	GND

JSB

1	+5V
2	VIDEO OUT
3	REC Ⓗ EE Ⓗ
4	VIDEO IN
5	HSS

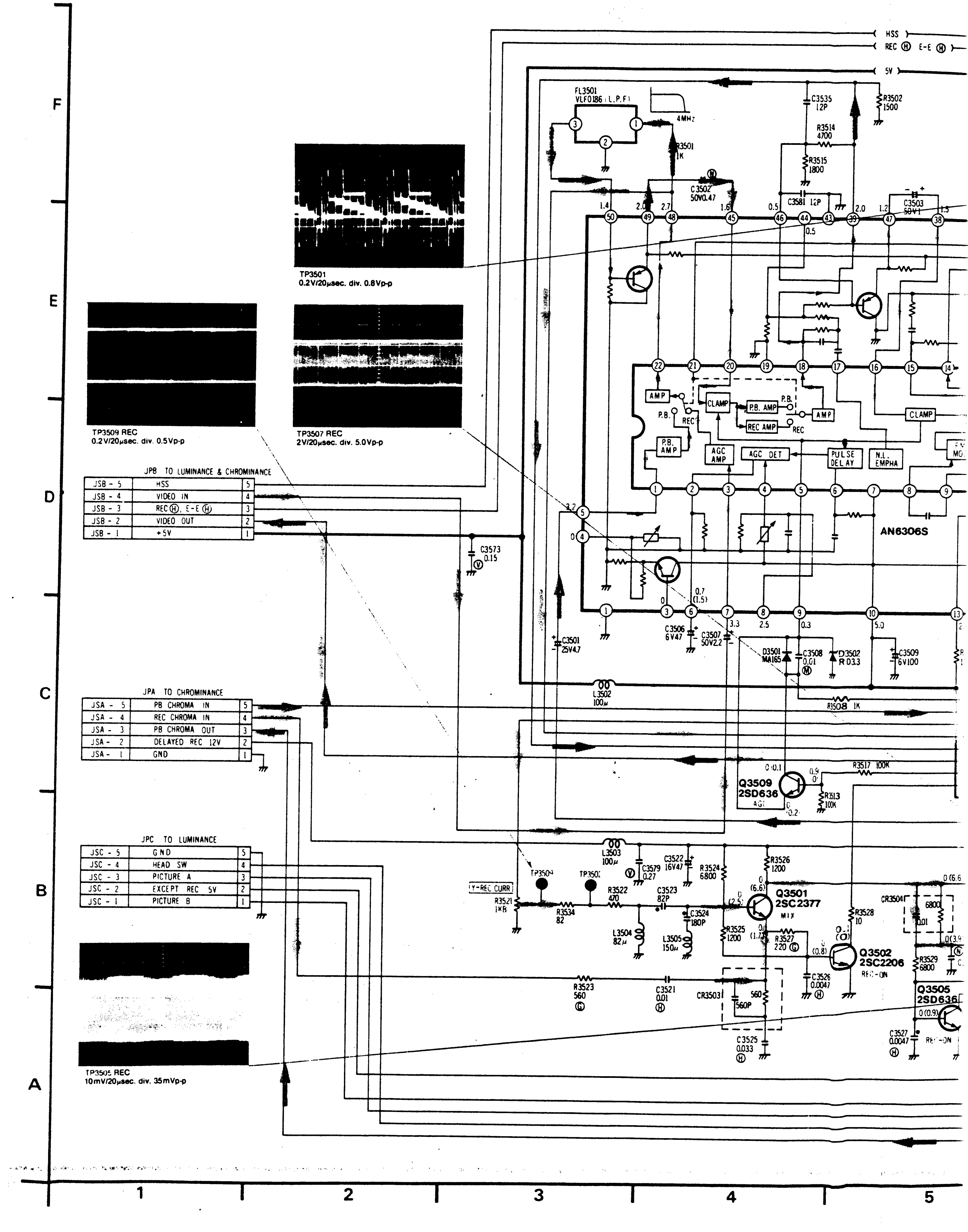
JSA

1	GND
2	D.REC 12V
3	PB.CHROMA IN
4	REC.CHROMA OUT
5	PB.CHROMA OUT

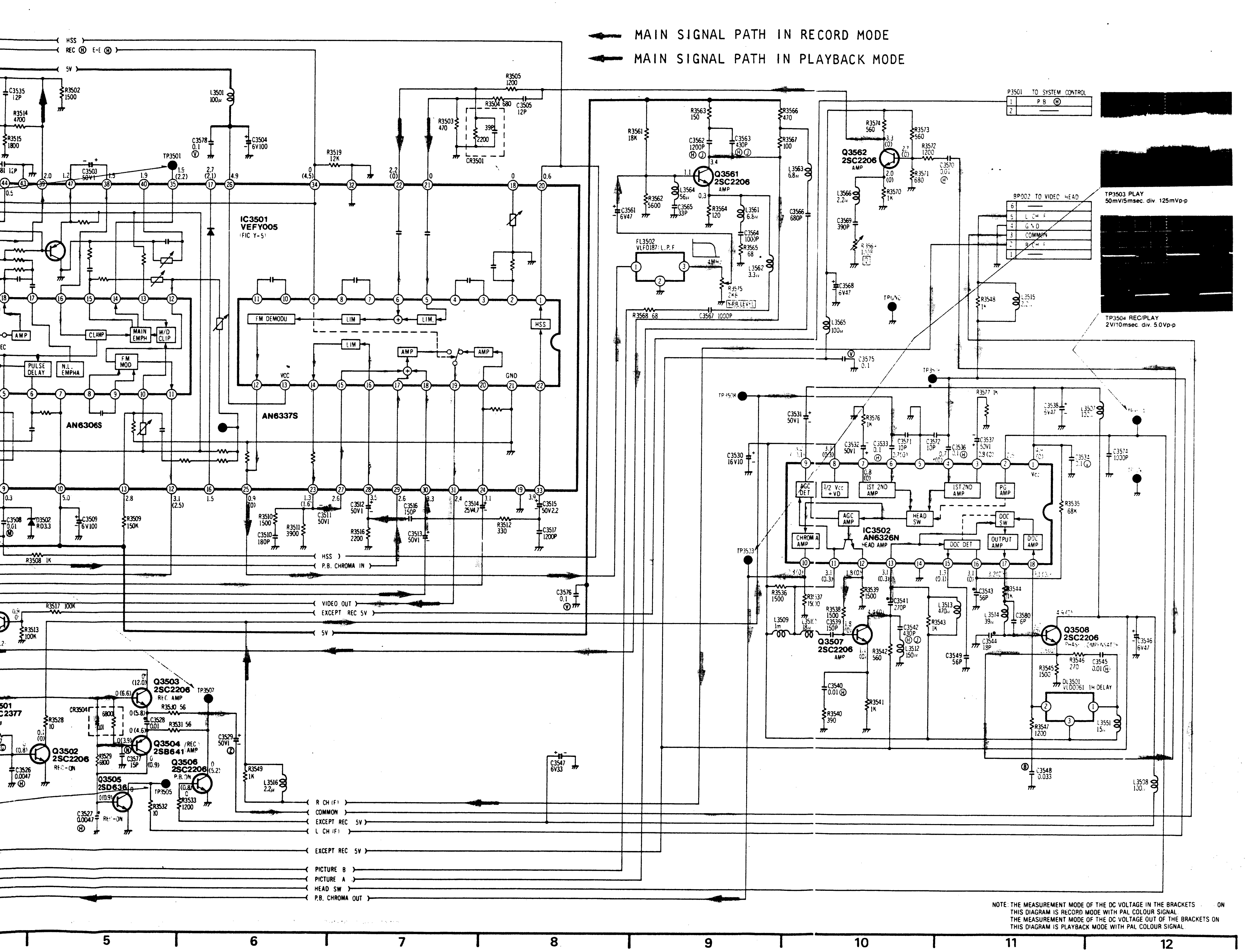
NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165.

7 8 9

HEAD AMP & LUMINANCE (2) SCHEMATIC DIAGRAM

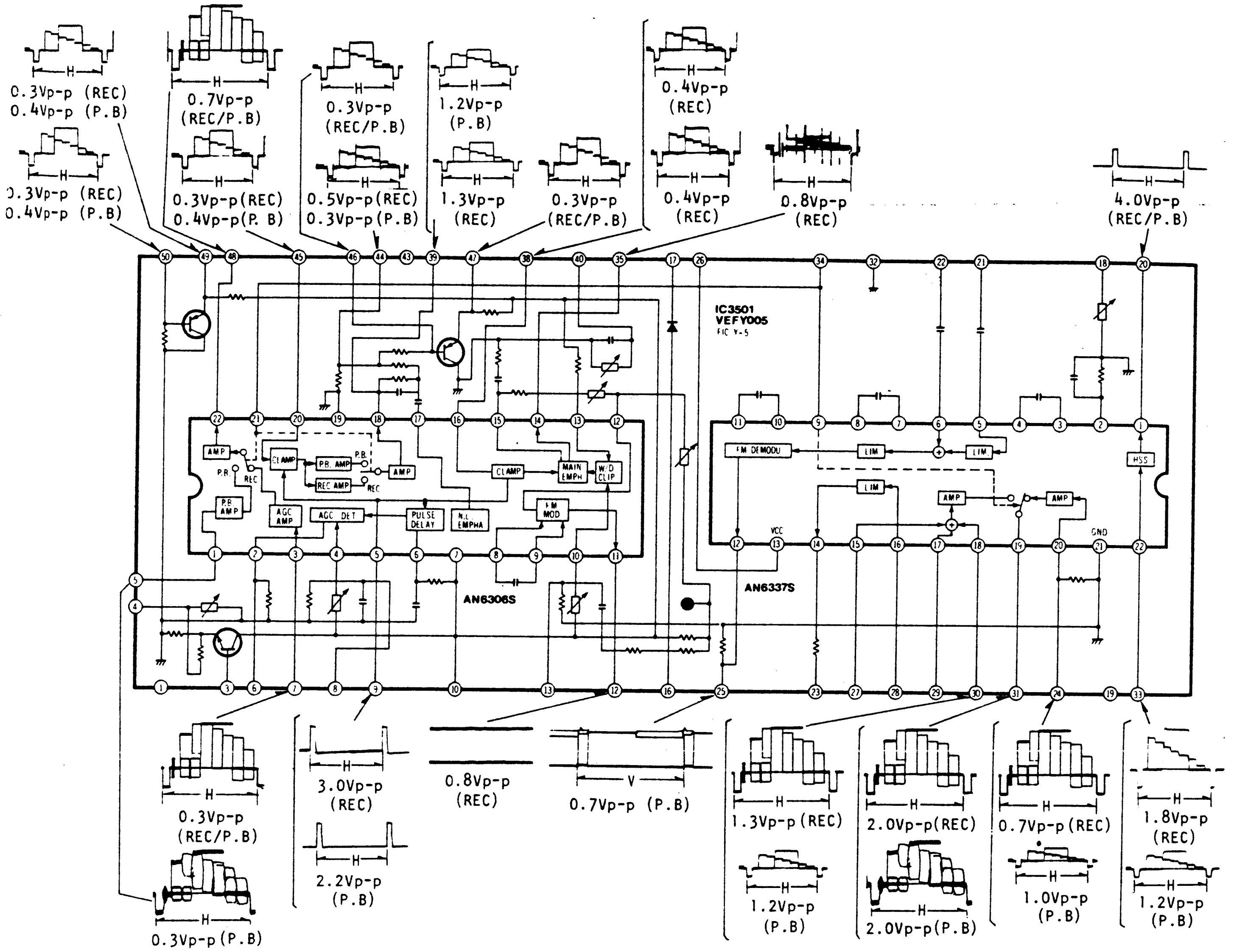

F
E
D
C
B
A
1
2
3
4
5
HSS
REC Ⓗ E-E Ⓗ
5V
FL3501
VLF0186 (L.P.F.)
4MHz
R3501
1K
C3502
50V0.47
C3535
12P
R3502
1500
R3514
4700
R3515
1800
C3581 12P
C3503
50V1
TP3501
0.2V/20μsec. div. 0.8Vp-p
TP3509 REC
0.2V/20μsec. div. 0.5Vp-p
TP3507 REC
2V/20μsec. div. 5.0Vp-p
JPB TO LUMINANCE & CHROMINANCE
JSB - 5 HSS 5
JSB - 4 VIDEO IN 4
JSB - 3 REC Ⓗ, E-E Ⓗ 3
JSB - 2 VIDEO OUT 2
JSB - 1 +5V 1
JPA TO CHROMINANCE
JSA - 5 PB CHROMA IN 5
JSA - 4 REC CHROMA IN 4
JSA - 3 PB CHROMA OUT 3
JSA - 2 DELAYED REC 12V 2
JSA - 1 GND 1
JPC TO LUMINANCE
JSC - 5 GND 5
JSC - 4 HEAD SW 4
JSC - 3 PICTURE A 3
JSC - 2 EXCEPT REC 5V 2
JSC - 1 PICTURE B 1
TP3505 REC
10mV/20μsec. div. 35mVp-p
AMP
CLAMP
P.B. AMP
REC AMP
P.B. AMP
AGC AMP
AGC DET
PULSE DELAY
N.L. EMPHA
CLAMP
AN6306S
C3573
0.15
C3501
25V4.7
C3506
6V47
C3507
50V2.2
D3501
MA165
C3508
0.01
D3502
RD3.3
C3509
6V100
L3502
100μ
R3508 1K
Q3509
2SD636
AGC
R3517 100K
R3513
100K
L3503
100μ
C3579
0.27
C3522
16V47
R3524
6800
R3526
1200
TP3504
TP3502
Y-REC CURR
R3521
1KB
R3534
82
R3522
470
C3523
82P
C3524
180P
L3504
82μ
L3505
150μ
R3525
1200
R3527
220
Q3501
2SC2377
MIX
R3528
10
Q3502
2SC2206
REC-ON
CR3504
6800
0.01
R3529
6800
Q3505
2SD636
REC-ON
C3526
0.0047
R3523
560
C3521
0.01
CR3503
560
560P
C3525
0.033
C3527
0.0047

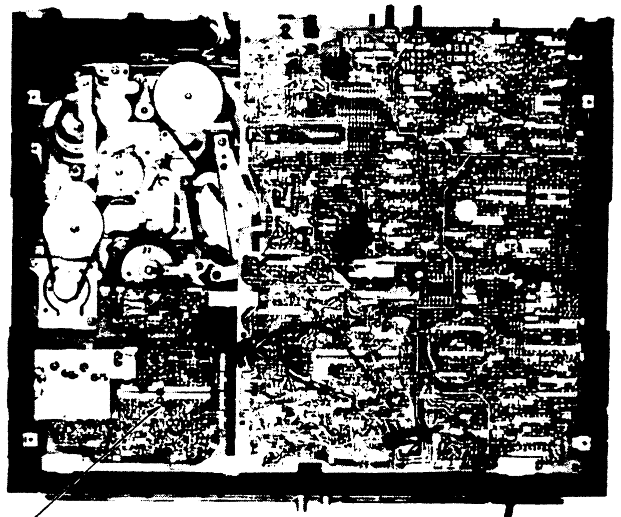
GRAM


MAIN SIGNAL PATH IN RECORD MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
IC3501
VEFY005
AN6306S
AN6337S
IC3502
AN6326N
HEAD AMP
Q3561
2SC2206
Q3562
2SC2206
Q3503
2SC2206
REC AMP
Q3504
2SB641
Q3506
2SC2206
Q3505
2SD636
Q3502
2SC2206
Q3507
2SC2206
Q3508
2SC2206
FL3502
VLF0187 L.P.F
DL3501
VLD0061 1H DELAY
P3501 TO SYSTEM CONTROL
BP002 TO VIDEO HEAD
TP3503 PLAY
50mV/5msec. div. 125mVp-p
TP3504 REC/PLAY
2V/10msec. div. 5.0Vp-p
HSS
P.B. CHROMA IN
VIDEO OUT
EXCEPT REC 5V
5V
R CH (F)
COMMON
L CH (F)
PICTURE B
PICTURE A
HEAD SW
P.B. CHROMA OUT
5
6
7
8
9
10
11
12

Head Amp & Luminance (2) Schematic	
Q3501	B-4
Q3502	B-5
Q3503	B-5
Q3504	B-5
Q3505	A-5
Q3506	B-6
Q3507	C-10
Q3508	C-11
Q3509	C-4
Q3561	F-9
Q3562	F-10
IC3501	E-6
IC3502	D-10

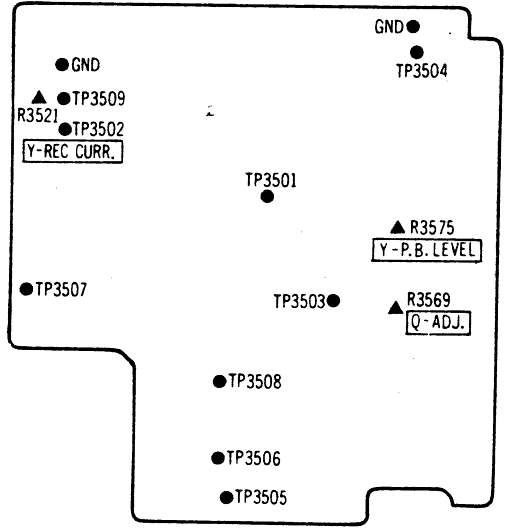
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.


0.3Vp-p (REC)
0.4Vp-p (P.B)
0.7Vp-p
(REC/P.B)
0.3Vp-p
(REC/P.B)
1.2Vp-p
(P.B)
0.4Vp-p
(REC)
0.3Vp-p (REC)
0.4Vp-p (P.B)
0.3Vp-p(REC)
0.4Vp-p(P. B)
0.5Vp-p(REC)
0.3Vp-p(P.B)
1.3Vp-p
(REC)
0.3Vp-p
(REC/P.B)
0.4Vp-p
(REC)
0.8Vp-p
(REC)
4.0Vp-p
(REC/P.B)
IC3501
VEFY005
AMP
CLAMP
PB AMP
REC AMP
AGC AMP
AGC DET
PULSE DELAY
N.L EMPHA
FM MOD
CLAMP
MAIN EMPH
W/D CLIP
AN6306S
FM DEMODU
LIM
AMP
HSS
AN6337S
VCC
GND
0.3Vp-p
(REC/P.B)
0.3Vp-p (P.B)
3.0Vp-p
(REC)
2.2Vp-p
(P.B)
0.8Vp-p
(REC)
0.7Vp-p (P.B)
1.3Vp-p (REC)
1.2Vp-p
(P.B)
2.0Vp-p(REC)
2.0Vp-p(P.B)
0.7Vp-p (REC)
1.0Vp-p
(P.B)
1.8Vp-p
(REC)
1.2Vp-p
(P.B)

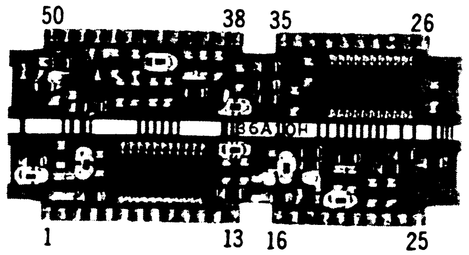

Head Amp & Luminance(2) P.C.Board

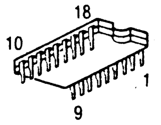
Head Amp & Luminance (2) C.B.A.	
Q3501	C-2
Q3502	B-3
Q3503	C-2
Q3504	C-2
Q3505	A-3
Q3506	A-3
Q3507	B-4
Q3508	A-4
Q3509	C-4
Q3561	C-4
Q3562	B-4
IC3501	C-3
IC3502	B-3

HEAD AMP & LUMINANCE (2) P.C.B. UNIT

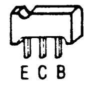

GND
TP3504
GND
TP3509
R3521
TP3502
Y-REC CURR.
TP3501
R3575
Y-P.B. LEVEL
TP3507
TP3503
R3569
Q-ADJ.
TP3508
TP3506
TP3505

HEAD AMP & LUMINANCE [2] P.C. BOARD ICs & TRANSISTORs INFORMATION


50
38
35
26
1
13
16
25

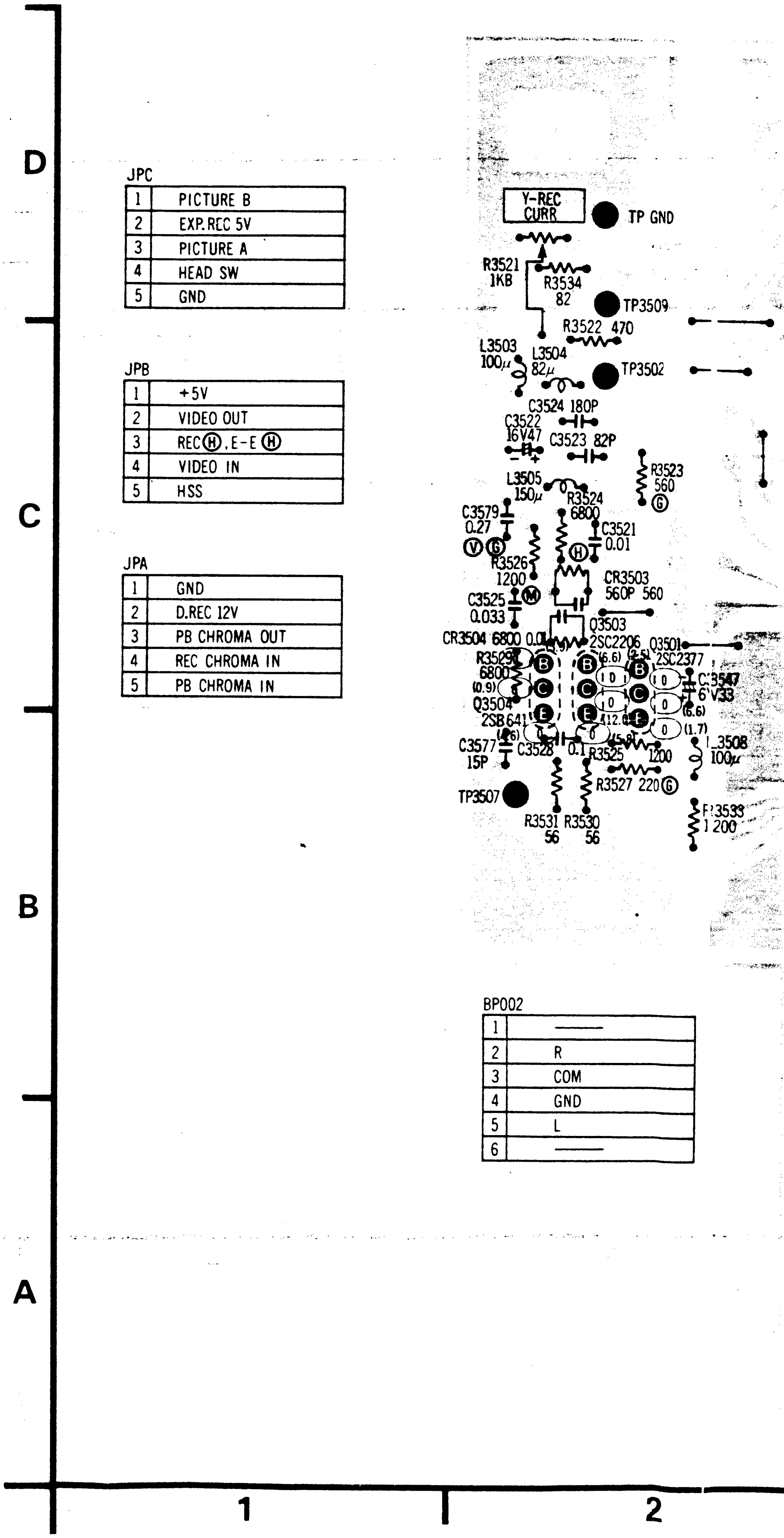


AN6326N



2SC2377
2SC2206
2SB641
2SD636

HEAD AMP & LUMINANCE (2) P.C.BO


D
C
B
A
1
2
Y-REC CURR
TP GND
R3521 1KB
R3534 82
TP3509
R3522 470
L3503 100μ
L3504 82μ
TP3502
C3524 180P
C3522 16V47
C3523 82P
R3523 560
L3505 150μ
R3524 6800
C3579 0.27
C3521 0.01
R3526 1200
CR3503 560P 560
C3525 0.033
Q3503 2SC2206
CR3504 6800 0.01
Q3501 2SC2377
R3529 6800
Q3504 2SB641
C3547 6V33
C3577 15P
C3528 0.1
R3525 1200
L3508 100μ
R3527 220
TP3507
R3531 56
R3530 56
R3533 1200

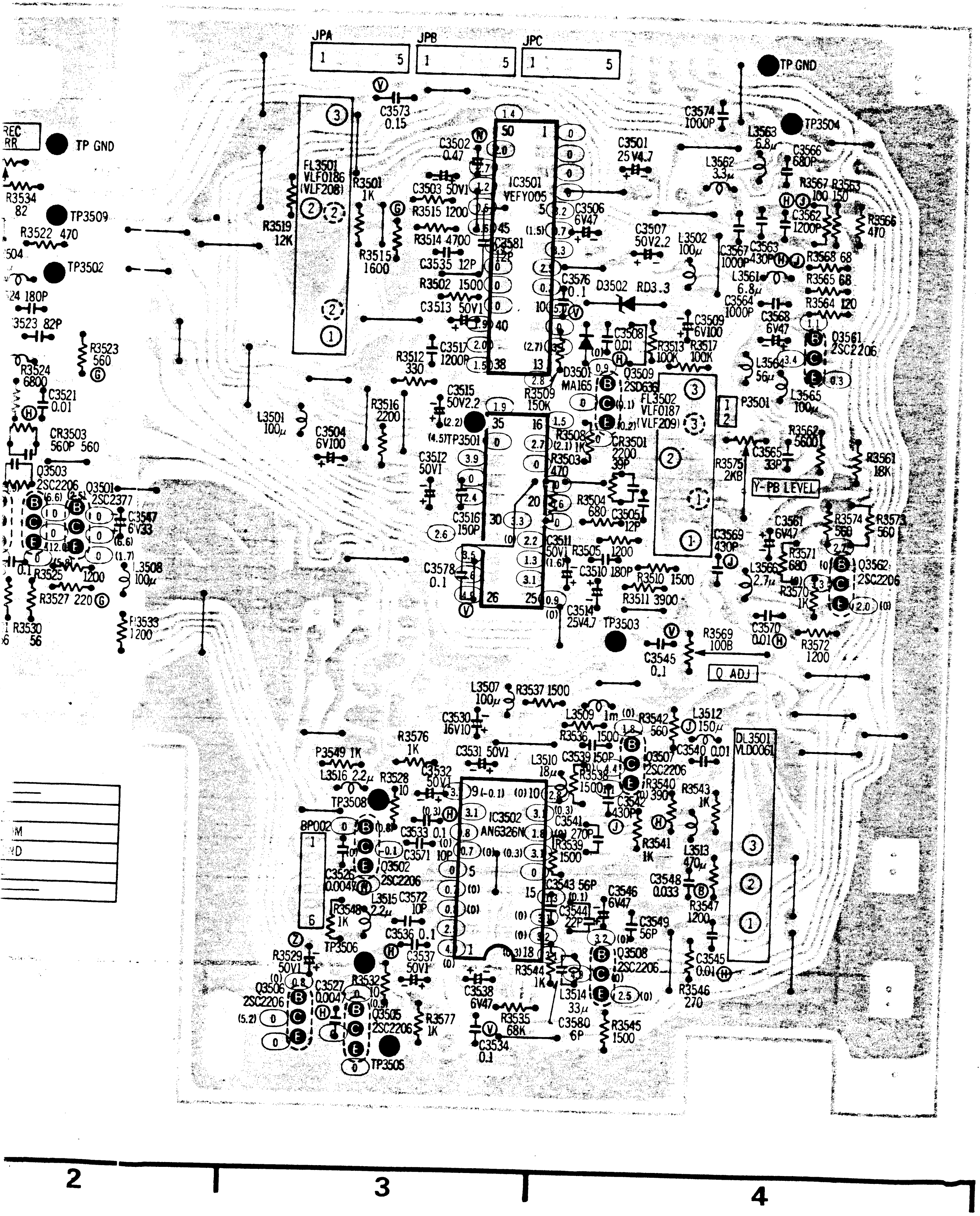
JPC	
1	PICTURE B
2	EXP.REC 5V
3	PICTURE A
4	HEAD SW
5	GND

JPB	
1	+5V
2	VIDEO OUT
3	REC Ⓗ, E-E Ⓗ
4	VIDEO IN
5	HSS

JPA	
1	GND
2	D.REC 12V
3	PB CHROMA OUT
4	REC CHROMA IN
5	PB CHROMA IN

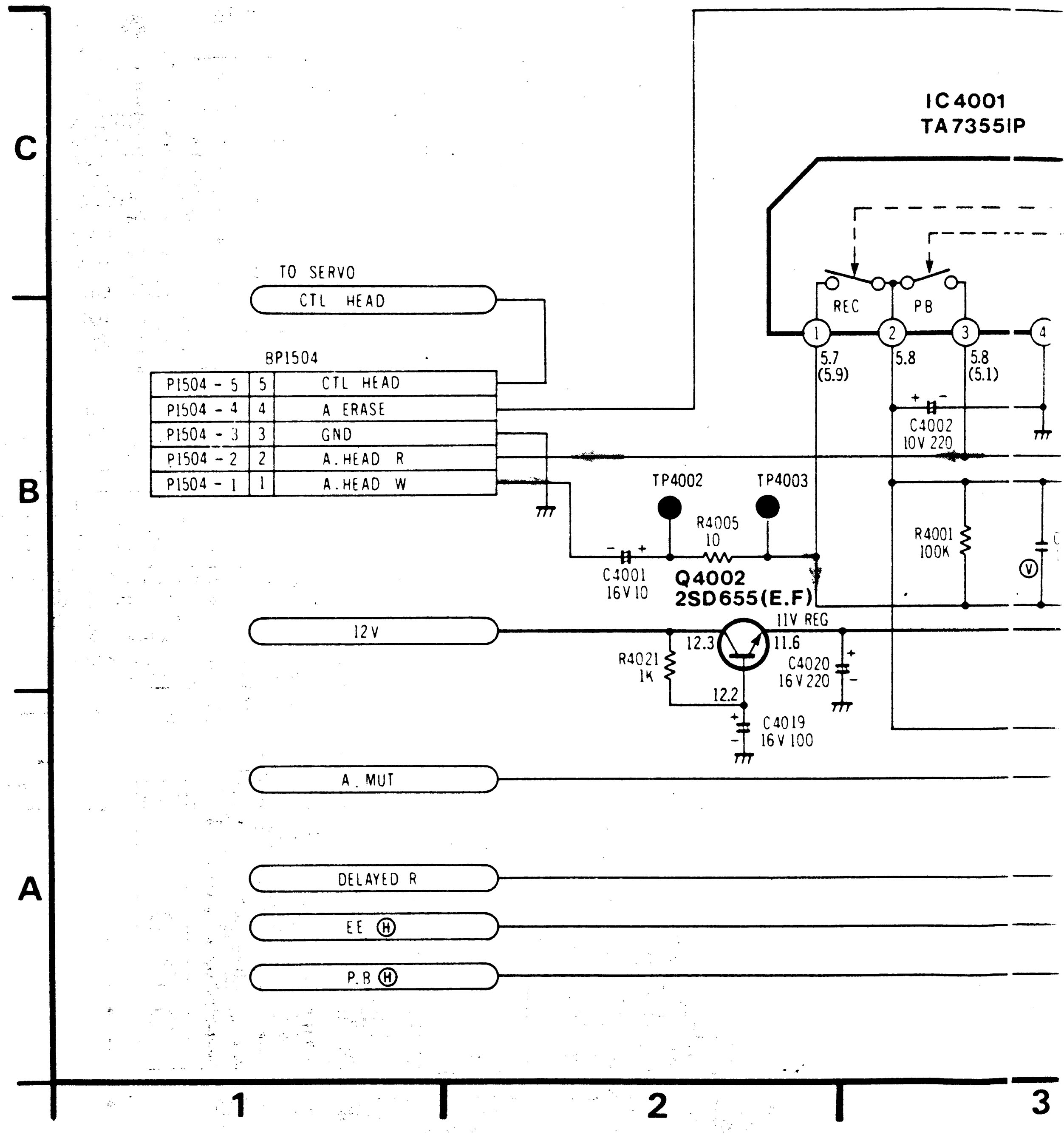
BP002	
1	———
2	R
3	COM
4	GND
5	L
6	———

CE (2) P.C.BOARD UNIT (VEP5051A)

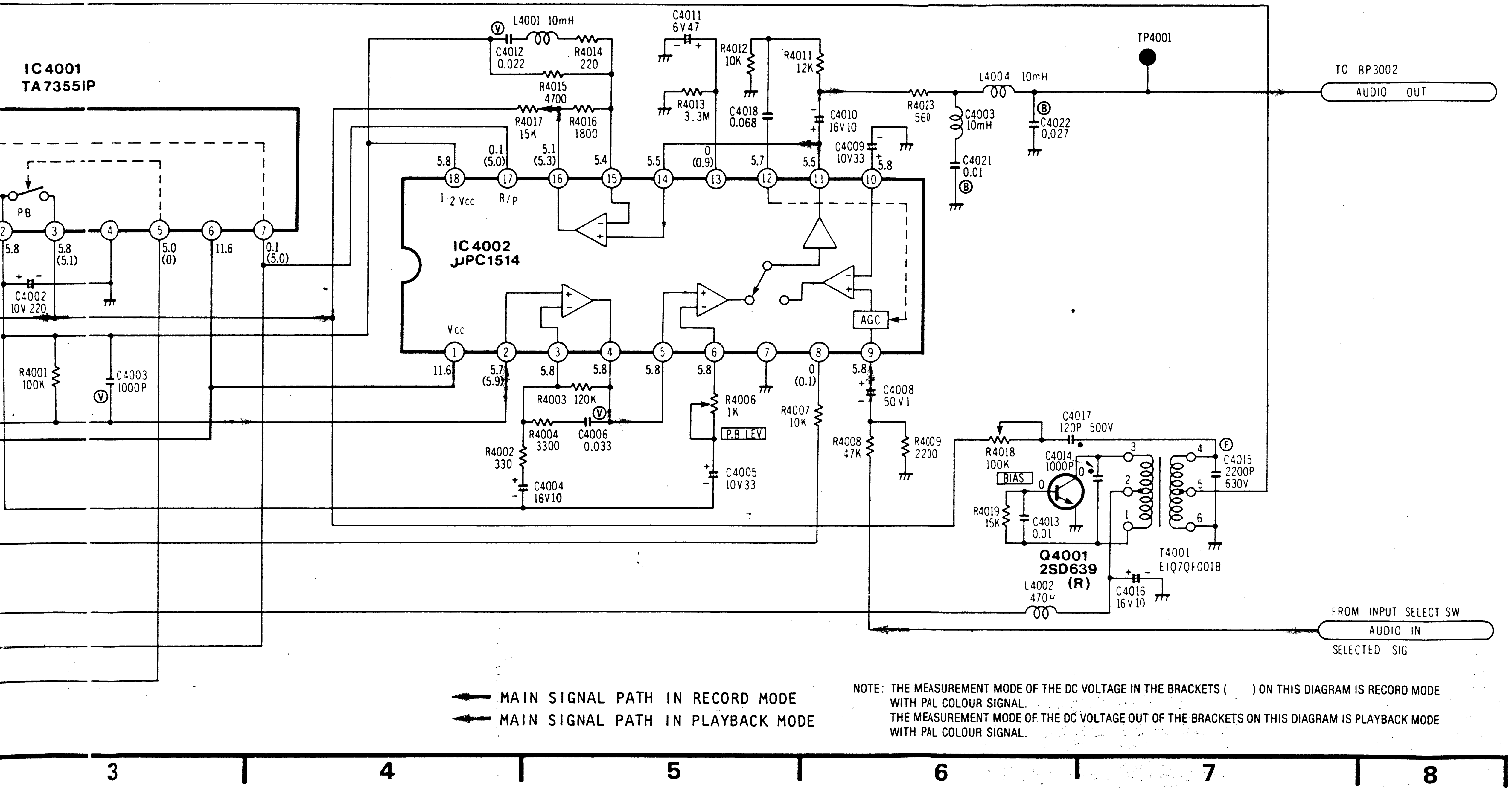

JPA
JPB
JPC
TP GND
TP3504
TP3509
TP3502
TP3501
TP3503
TP3508
TP3506
TP3505
IC3501
VEFY005
IC3502
AN6326N
FL3501
VLF0186
(VLF208)
FL3502
VLF0187
(VLF209)
DL3501
VLD0061
BP002
P3501
Y-PB LEVEL
Q ADJ
Q3501
2SC2377
Q3503
2SC2206
Q3502
2SC2206
Q3505
2SC2206
Q3506
2SC2206
Q3507
2SC2206
Q3508
2SC2206
Q3509
2SD636
Q3561
2SC2206
Q3562
2SC2206
D3501
MA165
D3502
RD3.3
CR3501
CR3503
C3573
0.15
C3574
1000P
C3501
25V4.7
C3502
0.47
L3562
3.3μ
L3563
6.8μ
L3501
100μ
L3502
100μ
L3507
100μ
L3508
100μ
L3509
1m
L3510
18μ
L3512
150μ
L3513
470μ
L3514
33μ
L3515
2.2μ
L3516
2.2μ
L3561
6.8μ
L3564
56μ
L3565
100μ
L3566
2.7μ
R3501
1K
R3502
1500
R3509
150K
R3512
330
R3513
100K
R3517
100K
R3519
12K
R3575
2KB
R3569
100B
R3537 1500
R3576
1K
R3549 1K
R3561
18K
R3572
1200
2
3
4

3-13

AUDIO SCHEMATIC DIAGRAM


C
B
A
1
2
3
IC4001
TA7355IP
REC
PB
1
2
3
4
5.7
(5.9)
5.8
5.8
(5.1)
TO SERVO
CTL HEAD
BP1504
P1504 - 5
5
CTL HEAD
P1504 - 4
4
A ERASE
P1504 - 3
3
GND
P1504 - 2
2
A.HEAD R
P1504 - 1
1
A.HEAD W
C4002
10V 220
TP4002
TP4003
R4005
10
R4001
100K
V
C4001
16V 10
Q4002
2SD655(E.F)
12V
11V REG
12.3
11.6
R4021
1K
C4020
16V 220
12.2
C4019
16V 100
A. MUT
DELAYED R
EE H
P.B H

Audio Schematic	
Q4001	B-6
Q4002	B-2
IC4001	C-3
IC4002	B-5

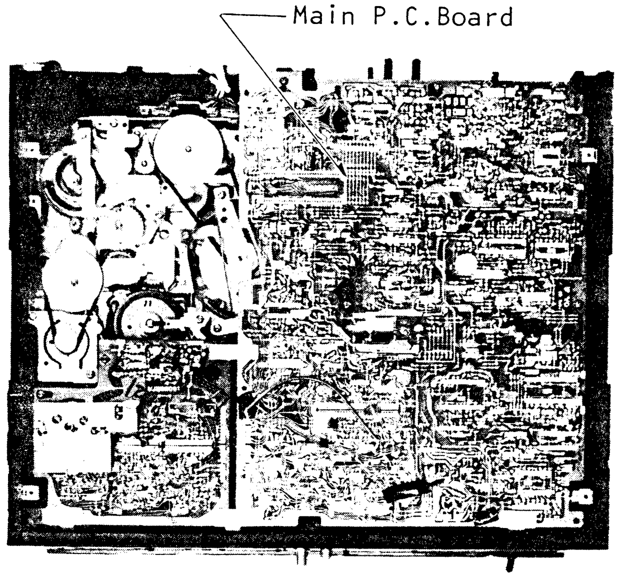

IC4001
TA7355IP
PB
C4002 10V 220
R4001 100K
C4003 1000P
IC4002
μPC1514
1/2 Vcc
R/P
Vcc
AGC
L4001 10mH
C4012 0.022
R4014 220
R4015 4700
P4017 15K
R4016 1800
C4011 6V47
R4012 10K
R4013 3.3M
R4011 12K
C4018 0.068
C4010 16V10
C4009 10V33
R4023 560
L4004 10mH
C4003 10mH
C4022 0.027
C4021 0.01
TP4001
TO BP3002
AUDIO OUT
R4003 120K
R4004 3300
C4006 0.033
R4002 330
C4004 16V10
R4006 1K
P.B LEV
C4005 10V33
R4007 10K
C4008 50V1
R4008 47K
R4009 2200
C4017 120P 500V
R4018 100K
C4014 1000P
BIAS
R4019 15K
C4013 0.01
Q4001
2SD639
(R)
L4002 470μ
C4016 16V10
T4001
E1Q7QF001B
C4015 2200P 630V
FROM INPUT SELECT SW
AUDIO IN
SELECTED SIG
3
4
5
6
7
8

MAIN SIGNAL PATH IN RECORD MODE
MAIN SIGNAL PATH IN PLAYBACK MODE

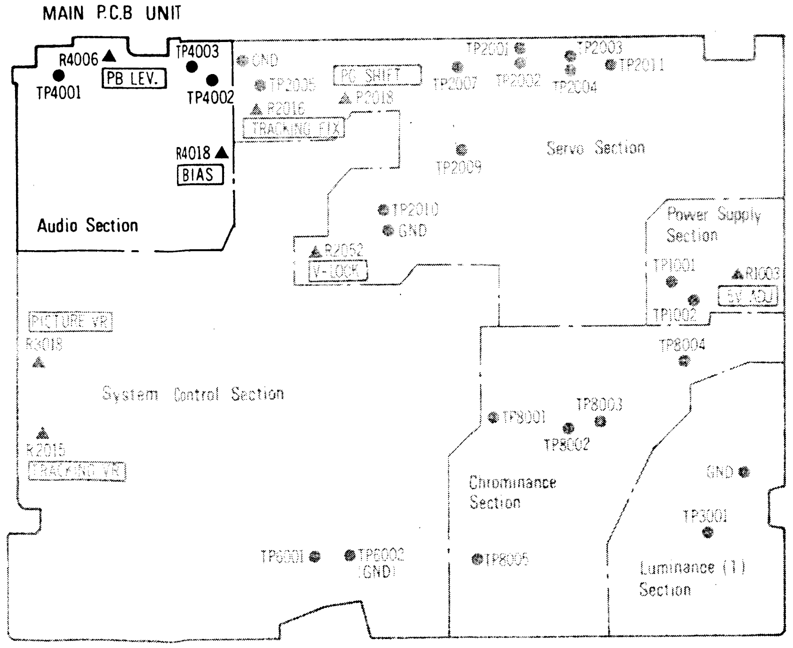
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

MAIN P.C.BOARD UNIT (VEP03194E: NV-370-E/-B; VEP03194B: NV-370-EG)

— Audio Section —


Main P.C.Board

Main C.B.A (Audio Section)	
Q4001	F-3
Q4002	F-3
IC4001	F-3
IC4002	F-3


MAIN P.C.B UNIT
R4006
TP4001
PB LEV.
TP4003
TP4002
GND
TP2008
FG SHIFT
TP2001
TP2003
TP2011
TP2007
TP2002
TP2004
R2016
R2018
TRACKING FIX
R4018
BIAS
TP2009
Servo Section
Audio Section
TP2010
GND
R2052
V-LOCK
Power Supply Section
TP1001
R1003
EV ADJ
TP1002
PICTURE VR
R3018
TP8004
System Control Section
TP8001
TP8003
TP8002
R2015
Chrominance Section
GND
TP3001
TP6001
TP6002 (GND)
TP8005
Luminance (1) Section

BP701 (TO DEMODU)

1	VIDEO
2	GND
3	AUDIO
4	GND
5	12V
6	PB Ⓗ
7	ANT BS

BP3001 (TO REAR JACK)

1	VIDEO IN
2	GND
3	AUDIO IN
4	GND

BP1504 (TO AC HEAD)

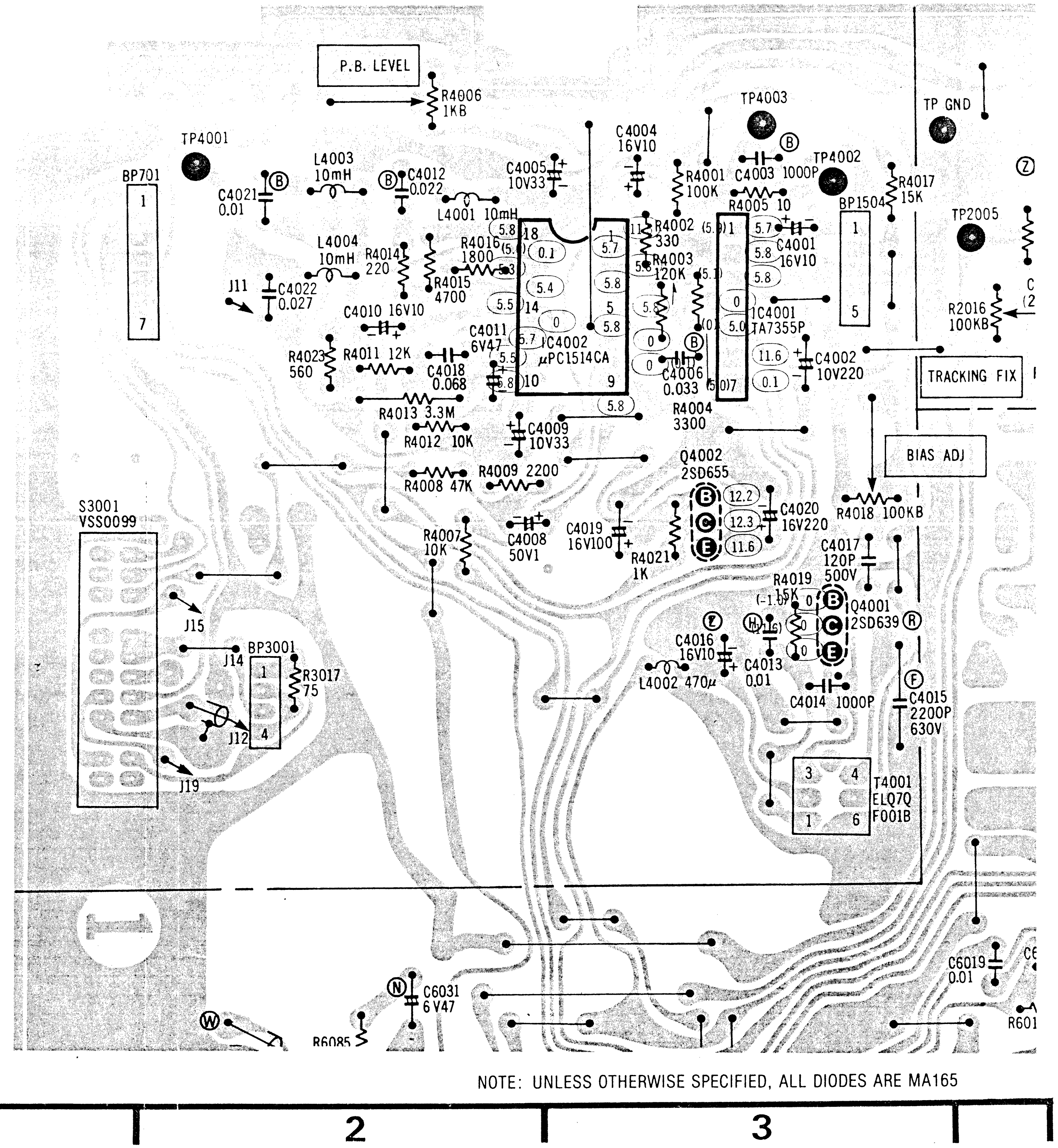
1	A HEAD (W)
2	A HEAD (R)
3	GND
4	A ERASE
5	A CTL HEAD

BP1508

1	SAFETY TAB
2	S1
3	S2
4	S3
5	REEL PULSE
6	PHOTO CP +B

BP7503 (TO TIMER)

1	TUNER Ⓛ
2	CH LOCK 12V
3	REG +6V
4	GND
5	POWER SW Ⓛ
6	SAFETY TAB Ⓛ

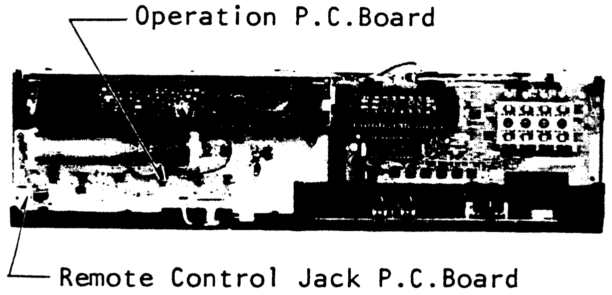

G
F
E
1
2
3
P.B. LEVEL
R4006 1KB
TP4001
BP701
C4021 0.01
L4003 10mH
C4012 0.022
C4005 10V33
L4001 10mH
L4004 10mH
R4014 220
R4016 1800
R4015 4700
J11
C4022 0.027
C4010 16V10
C4011 6V47
R4023 560
R4011 12K
C4018 0.068
R4013 3.3M
R4012 10K
C4009 10V33
IC4002 µPC1514CA
C4004 16V10
R4001 100K
C4003 1000P
TP4003
TP4002
R4005 10
R4002 330
R4003 120K
C4001 16V10
IC4001 TA7355P
C4006 0.033
C4002 10V220
R4004 3300
BP1504
R4017 15K
TP GND
TP2005
R2016 100KB
TRACKING FIX
BIAS ADJ
R4009 2200
R4008 47K
Q4002 2SD655
C4020 16V220
R4018 100KB
S3001 VSS0099
R4007 10K
C4008 50V1
C4019 16V100
R4021 1K
C4017 120P 500V
R4019 15K
Q4001 2SD639
J15
C4016 16V10
C4013 0.01
L4002 470µ
C4014 1000P
C4015 2200P 630V
BP3001
J14
R3017 75
J12
J19
T4001 ELQ7Q F001B
C6031 6V47
R6085
C6019 0.01
R601

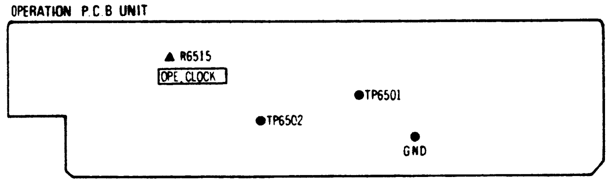
NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165

OPERATION P.C.BOARD UNIT (VEP6211B)

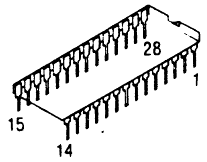
Operation Schematic	
Q6501	C-2
Q6502	C-4
Q6503	C-4
Q6504	C-3
IC6501	B-3

Operation C.B.A.	
Q6501	B-5
Q6502	B-5
Q6503	B-5
Q6504	B-5
IC6501	C-4

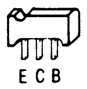

Operation P.C.Board
Remote Control Jack P.C.Board


OPERATION P.C B UNIT
R6515
OPE CLOCK
TP6501
TP6502
GND

OPERATION P.C. BOARD ICs & TRANSISTORs INFORMATION

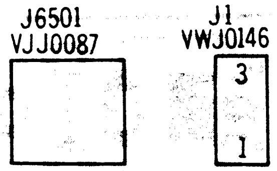


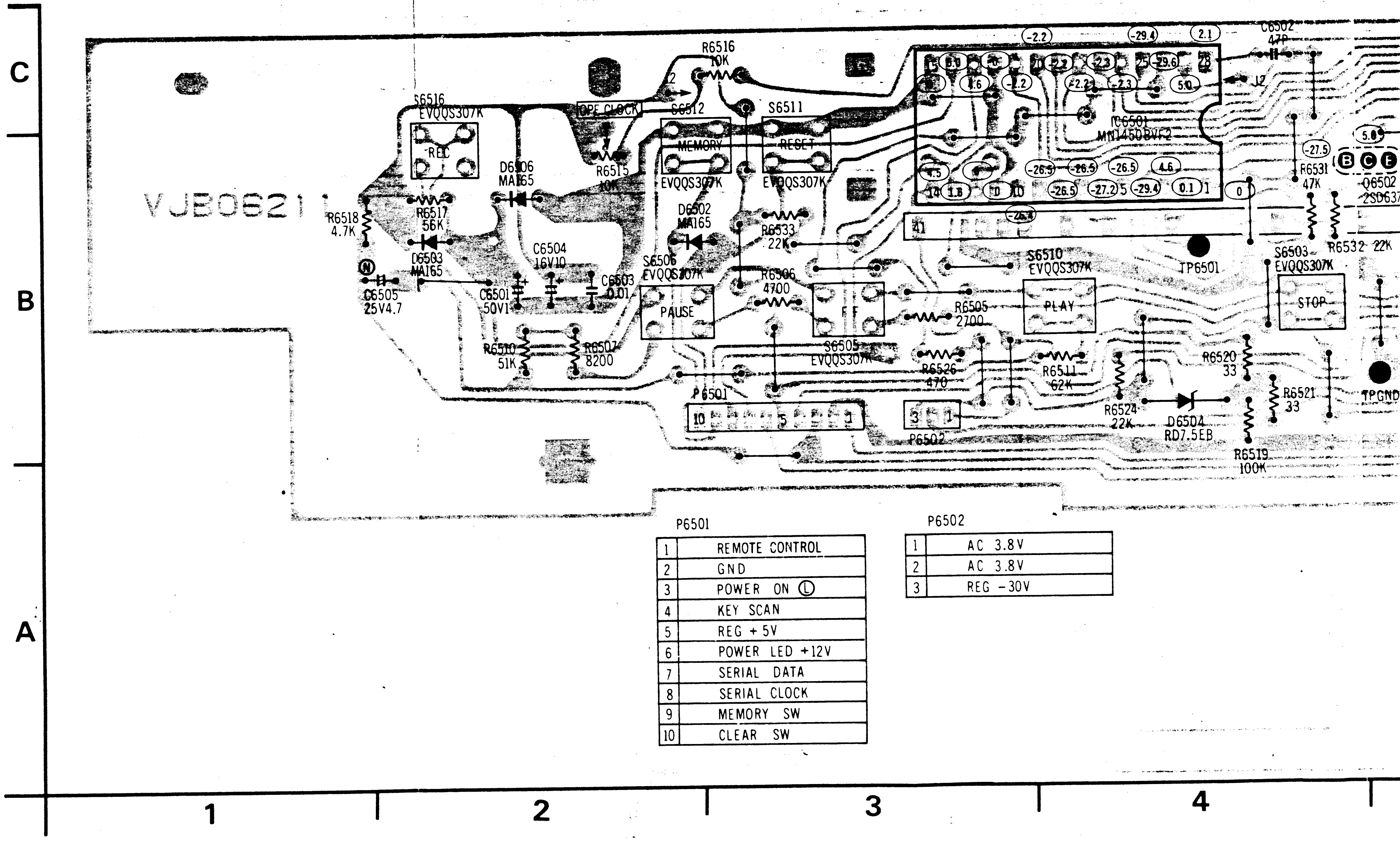
MN1450BVF2



2SB642
2SD637

REMOTE CONTROL JACK P.C.BOARD (VJB00B24A)


J6501
VJJ0087
J1
VWJ0146
3
1

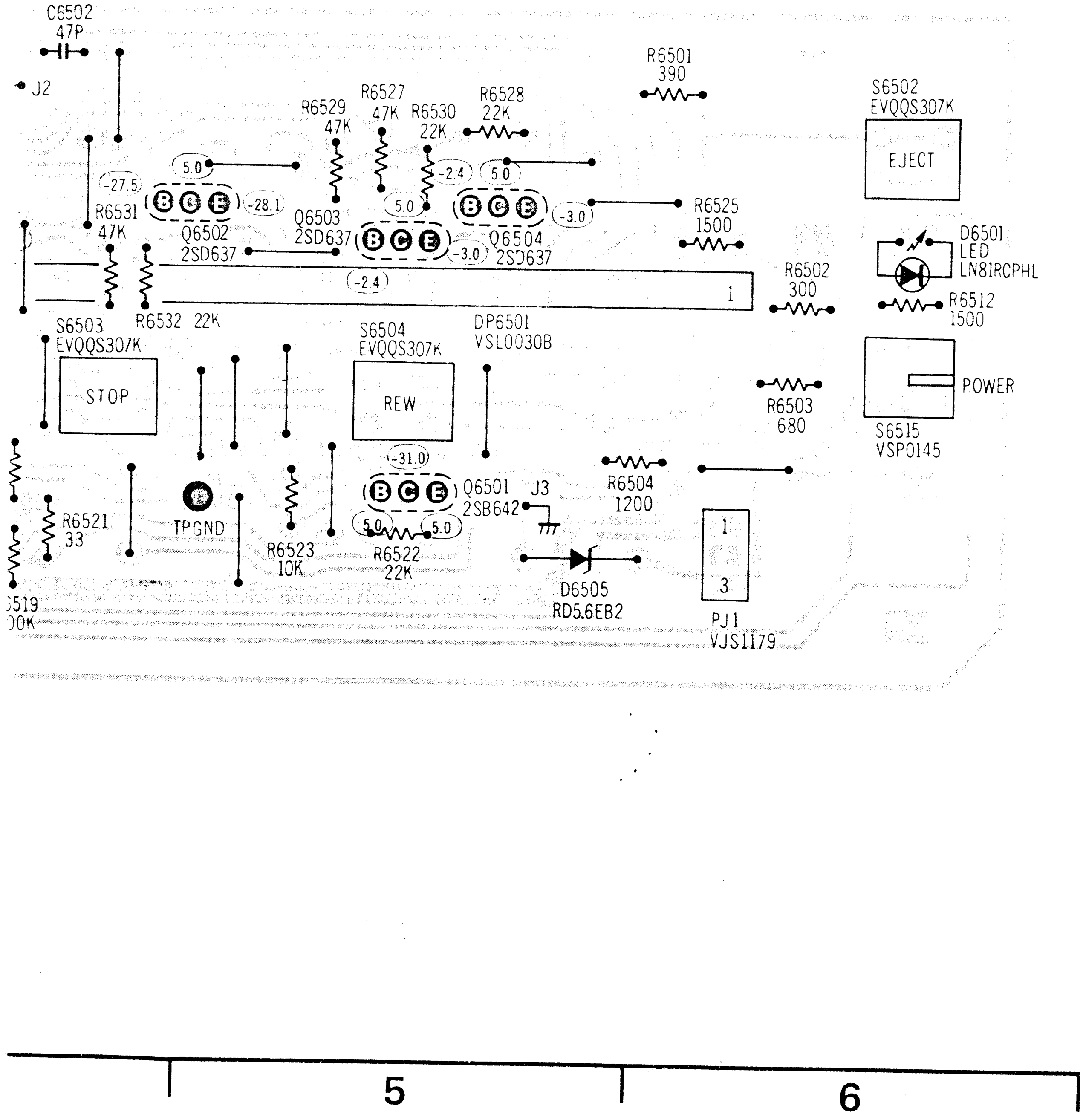

C
B
A
1
2
3
4
VJB0621
R6516
10K
S6516
EVQQS307K
REC
OPE CLOCK
S6512
MEMORY
S6511
RESET
EVQQS307K
EVQQS307K
R6515
10K
D6506
MA165
R6518
4.7K
R6517
56K
D6503
MA165
C6505
25V4.7
C6501
50V1
C6504
16V10
C6503
0.01
D6502
MA165
R6533
22K
S6506
EVQQS307K
PAUSE
R6506
4700
F.F
R6505
2700
S6505
EVQQS307K
R6510
51K
R6507
8200
P6501
10
5
1
P6502
3
1
R6526
470
R6511
62K
S6510
EVQQS307K
PLAY
TP6501
R6524
22K
D6504
RD7.5EB
R6520
33
R6521
33
R6519
100K
S6503
EVQQS307K
STOP
R6532 22K
R6531
47K
Q6502
2SD637
C6502
47P
IC6501
MN1450BVF2
TPGND
(-2.2)
(-29.4)
(2.1)
(-26.5)
(-27.2)
(4.6)
(0.1)
(-27.5)
(5.0)
41
1
J2

P6501

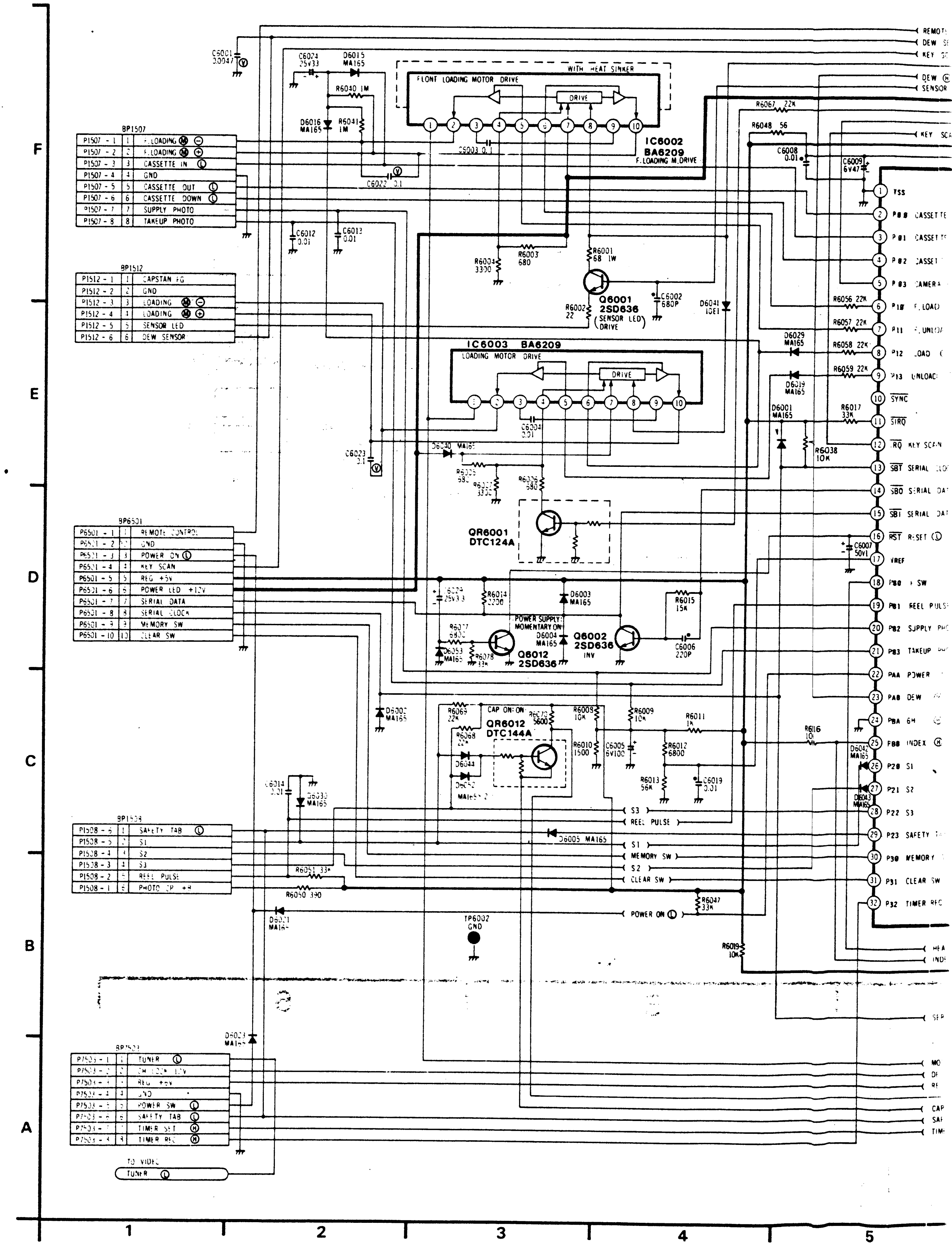
1	REMOTE CONTROL
2	GND
3	POWER ON Ⓛ
4	KEY SCAN
5	REG +5V
6	POWER LED +12V
7	SERIAL DATA
8	SERIAL CLOCK
9	MEMORY SW
10	CLEAR SW

P6502

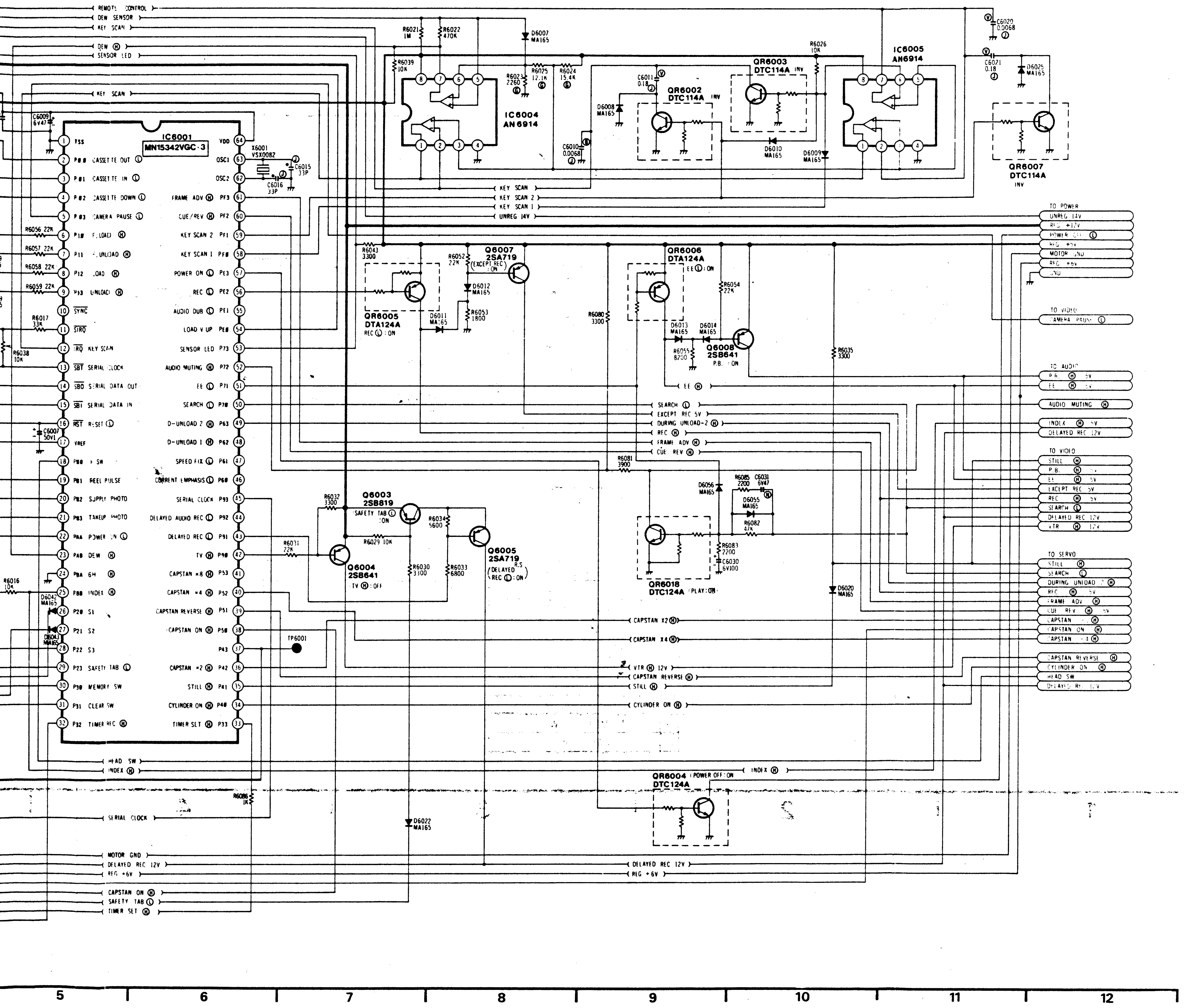
1	AC 3.8V
2	AC 3.8V
3	REG -30V


C6502
47P
J2
R6529
47K
R6527
47K
R6530
22K
R6528
22K
R6501
390
S6502
EVQQS307K
EJECT
5.0
-27.5
-28.1
R6531
47K
Q6502
2SD637
Q6503
2SD637
5.0
-2.4
5.0
-3.0
Q6504
2SD637
R6525
1500
D6501
LED
LN81RCPHL
R6502
300
R6512
1500
-2.4
1
S6503
EVQQS307K
R6532 22K
S6504
EVQQS307K
DP6501
VSL0030B
STOP
REW
POWER
R6503
680
S6515
VSP0145
-31.0
Q6501
2SB642
J3
R6504
1200
R6521
33
TPGND
R6523
10K
5.0
5.0
R6522
22K
D6505
RD5.6EB2
1
3
PJ1
VJS1179
519
0K
5
6

SYSTEM CONTROL SCHEMAITC DIAGRAM (IC6001: MN


F
E
D
C
B
A
1
2
3
4
5
BP1507
P1507 - 1 | 1 | F. LOADING Ⓜ ⊖
P1507 - 2 | 2 | F. LOADING Ⓜ ⊕
P1507 - 3 | 3 | CASSETTE IN Ⓛ
P1507 - 4 | 4 | GND
P1507 - 5 | 5 | CASSETTE OUT Ⓛ
P1507 - 6 | 6 | CASSETTE DOWN Ⓛ
P1507 - 7 | 7 | SUPPLY PHOTO
P1507 - 8 | 8 | TAKEUP PHOTO
BP1512
P1512 - 1 | 1 | CAPSTAN FG
P1512 - 2 | 2 | GND
P1512 - 3 | 3 | LOADING Ⓜ ⊖
P1512 - 4 | 4 | LOADING Ⓜ ⊕
P1512 - 5 | 5 | SENSOR LED
P1512 - 6 | 6 | DEW SENSOR
BP6501
P6501 - 1 | 1 | REMOTE CONTROL
P6501 - 2 | 2 | GND
P6501 - 3 | 3 | POWER ON Ⓛ
P6501 - 4 | 4 | KEY SCAN
P6501 - 5 | 5 | REG +5V
P6501 - 6 | 6 | POWER LED +12V
P6501 - 7 | 7 | SERIAL DATA
P6501 - 8 | 8 | SERIAL CLOCK
P6501 - 9 | 9 | MEMORY SW
P6501 - 10 | 10 | CLEAR SW
BP1508
P1508 - 6 | 1 | SAFETY TAB Ⓛ
P1508 - 5 | 2 | S1
P1508 - 4 | 3 | S2
P1508 - 3 | 4 | S3
P1508 - 2 | 5 | REEL PULSE
P1508 - 1 | 6 | PHOTO CP +B
BP7503
P7503 - 1 | 1 | TUNER Ⓛ
P7503 - 2 | 2 | CH LOCK 12V
P7503 - 3 | 3 | REG +5V
P7503 - 4 | 4 | GND
P7503 - 5 | 5 | POWER SW Ⓛ
P7503 - 6 | 6 | SAFETY TAB Ⓛ
P7503 - 7 | 7 | TIMER SET Ⓗ
P7503 - 8 | 8 | TIMER REC Ⓗ
TO VIDEO
TUNER Ⓛ
C6001 0.0047
C6024 25V33
D6015 MA165
R6040 1M
D6016 MA165
R6041 1M
C6003 0.1
C6022 0.1
WITH HEAT SINKER
FLONT LOADING MOTOR DRIVE
DRIVE
IC6002
BA6209
F. LOADING M. DRIVE
C6012 0.01
C6013 0.01
R6004 3300
R6003 680
R6001 68 1W
Q6001
2SD636
R6002 22
C6002 680P
SENSOR LED DRIVE
D6041
IC6003 BA6209
LOADING MOTOR DRIVE
DRIVE
C6004 0.01
C6023 0.1
D6040 MA165
R6005 680
R6006 680
R6022 330
QR6001
DTC124A
R6067 22K
R6048 56
C6008 0.01
C6009 6V47
D6029 MA165
D6019 MA165
D6001 MA165
R6017 33K
R6038 10K
R6056 22K
R6057 22K
R6058 22K
R6059 22K
C6007 50V1
C6020 25V33
R6014 2200
D6003 MA165
POWER SUPPLY MOMENTARY ON
R6077 6800
D6053 MA165
R6078 10K
Q6012
2SD636
D6004 MA165
Q6002
2SD636
INV
R6015 15K
C6006 220P
D6002 MA165
R6069 22K
R6068 22K
CAP ON OFF
R6070 5600
QR6012
DTC144A
D6044
D6052 MA165 × 2
R6008 10K
R6009 10K
R6010 1500
C6005 6V100
R6011 1K
R6012 6800
R6013 56K
C6019 0.01
R6116 10K
D6042 MA165
D6043 MA165
C6014 0.01
D6030 MA165
R6051 33K
R6050 390
D6005 MA165
D6021 MA165
D6023 MA165
TP6002 GND
R6047 33K
R6019 10K
S3
REEL PULSE
S1
MEMORY SW
S2
CLEAR SW
POWER ON Ⓛ
REMOTE
DEW
KEY
DEW Ⓗ
SENSOR
KEY SCA
1 VSS
2 P00 CASSETTE
3 P01 CASSETTE
4 P02 CASSET
5 P03 CAMERA
6 P10 F. LOAD
7 P11 F. UNLOA
8 P12 LOAD
9 P13 UNLOAD
10 SYNC
11 SIRQ
12 IRQ KEY SCAN
13 SBT SERIAL CLO
14 SBO SERIAL DAT
15 SBI SERIAL DAT
16 RST RESET Ⓛ
17 VREF
18 P80 SW
19 P81 REEL PULS
20 P82 SUPPLY PH
21 P83 TAKEUP
22 PAA POWER
23 PAB DEW
24 PBA 6H
25 PBB INDEX Ⓗ
26 P20 S1
27 P21 S2
28 P22 S3
29 P23 SAFETY
30 P30 MEMORY
31 P31 CLEAR SW
32 P32 TIMER REC
HEA
IND
SEP
MO
CAP
SAF
TIM

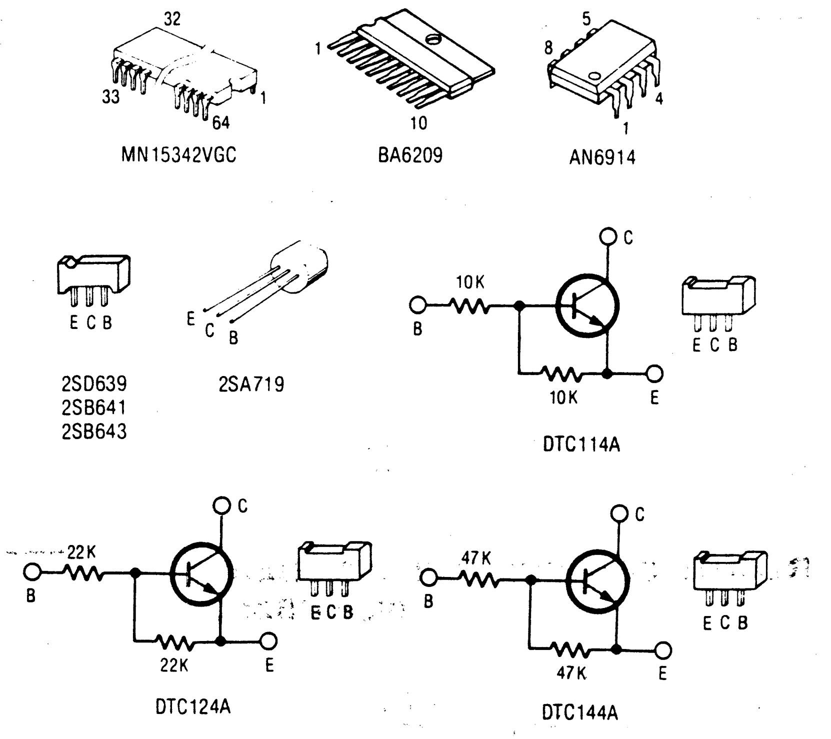
C6001: MN15342VGC-3)



REMOTE CONTROL
DEW SENSOR
KEY SCAN
DEW Ⓗ
SENSOR LED
IC6001
MN15342VGC-3
VSS
VDD
P00 CASSETTE OUT Ⓛ
P01 CASSETTE IN Ⓛ
P02 CASSETTE DOWN Ⓛ
P03 CAMERA PAUSE Ⓛ
P10 F.LOAD Ⓗ
P11 F.UNLOAD Ⓗ
P12 LOAD Ⓗ
P13 UNLOAD Ⓗ
SYNC
STRQ
IRQ KEY SCAN
SBT SERIAL CLOCK
SBO SERIAL DATA OUT
SBI SERIAL DATA IN
RST RESET Ⓛ
VREF
P80 + SW
P81 REEL PULSE
P82 SUPPLY PHOTO
P83 TAKEUP PHOTO
P8A POWER ON Ⓛ
P8B DEW Ⓗ
P9A 6H Ⓗ
P9B INDEX Ⓗ
P20 S1
P21 S2
P22 S3
P23 SAFETY TAB Ⓛ
P30 MEMORY SW
P31 CLEAR SW
P32 TIMER REC Ⓗ
OSC1
OSC2
FRAME ADV Ⓗ PF3
CUE/REV Ⓗ PF2
KEY SCAN 2 PF1
KEY SCAN 1 PF0
POWER ON Ⓛ PE3
REC Ⓛ PE2
AUDIO DUB Ⓛ PE1
LOAD V UP PE0
SENSOR LED P73
AUDIO MUTING Ⓗ P72
EE Ⓛ P71
SEARCH Ⓛ P70
D-UNLOAD 2 Ⓗ P63
D-UNLOAD 1 Ⓗ P62
SPEED FIX Ⓛ P61
CURRENT EMPHASIS Ⓛ P60
SERIAL CLOCK P93
DELAYED AUDIO REC Ⓛ P92
DELAYED REC Ⓛ P91
TV Ⓗ P90
CAPSTAN ×8 Ⓗ P53
CAPSTAN ×4 Ⓗ P52
CAPSTAN REVERSE Ⓗ P51
CAPSTAN ON Ⓗ P50
P43
CAPSTAN ×2 Ⓗ P42
STILL Ⓗ P41
CYLINDER ON Ⓗ P40
TIMER SET P33
X6001 VSX0082
C6015 33P
C6016 33P
C6009 6V47
C6007 50V1
R6056 22K
R6057 22K
R6058 22K
R6059 22K
R6017 33K
R6038 10K
R6016 10K
D6042 MA165
D6043 MA165
TP6001
R6021 1M
R6022 470K
D6007 MA165
R6039 10K
R6023 2260
R6025 12.1K
R6024 15.4K
IC6004 AN6914
C6010 0.0068
C6011 0.18
D6008 MA165
QR6002 DTC114A INV
QR6003 DTC114A INV
D6010 MA165
D6009 MA165
R6026 10K
IC6005 AN6914
C6020 0.0068
C6021 0.18
D6025 MA165
QR6007 DTC114A INV
KEY SCAN
KEY SCAN 2
KEY SCAN 1
UNREG 14V
R6043 3300
QR6005 DTA124A REC Ⓛ : ON
D6011 MA165
R6052 22K
Q6007 2SA719 (EXCEPT REC) : ON
D6012 MA165
R6053 1800
R6080 3300
QR6006 DTA124A EE Ⓛ : ON
R6054 22K
D6013 MA165
D6014 MA165
R6055 8200
Q6008 2SB641 P.B. : ON
R6035 3300
EE Ⓗ
SEARCH Ⓛ
EXCEPT REC 5V
DURING UNLOAD-2 Ⓗ
REC Ⓗ
FRAME ADV Ⓗ
CUE REV Ⓗ
R6081 3900
D6056 MA165
R6085 2200
C6031 6V47
D6055 MA165
R6082 47K
R6083 2200
C6030 6V100
QR6018 DTC124A PLAY : ON
D6020 MA165
R6037 3300
Q6003 2SB819 SAFETY TAB Ⓛ : ON
R6034 5600
R6029 10K
R6031 22K
Q6004 2SB641 TV Ⓗ : OFF
R6030 3300
R6033 6800
Q6005 2SA719 (DELAYED REC Ⓛ : ON)
CAPSTAN X2 Ⓗ
CAPSTAN X4 Ⓗ
VTR Ⓗ 12V
CAPSTAN REVERSE Ⓗ
STILL Ⓗ
CYLINDER ON Ⓗ
HEAD SW
INDEX Ⓗ
QR6004 (POWER OFF : ON) DTC124A
INDEX Ⓗ
R6086 1K
SERIAL CLOCK
D6022 MA165
MOTOR GND
DELAYED REC 12V
REG +6V
CAPSTAN ON Ⓗ
SAFETY TAB Ⓛ
TIMER SET Ⓗ
TO POWER
UNREG 14V
REG +12V
POWER OFF Ⓛ
REG +5V
MOTOR GND
REG +6V
GND
TO VIDEO
CAMERA PAUSE Ⓛ
TO AUDIO
P.B. Ⓗ 5V
EE Ⓗ 5V
AUDIO MUTING Ⓗ
INDEX Ⓗ 5V
DELAYED REC 12V
TO VIDEO
STILL Ⓗ
P.B. Ⓗ
EE Ⓗ 5V
EXCEPT REC 5V
REC Ⓗ 5V
SEARCH Ⓛ
DELAYED REC 12V
VTR Ⓗ 12V
TO SERVO
STILL Ⓗ
SEARCH Ⓛ
DURING UNLOAD 2 Ⓗ
REC Ⓗ 5V
FRAME ADV Ⓗ
CUE REV Ⓗ 5V
CAPSTAN ×2 Ⓗ
CAPSTAN ON Ⓗ
CAPSTAN ×8 Ⓗ
CAPSTAN REVERSE Ⓗ
CYLINDER ON Ⓗ
HEAD SW
DELAYED REC 12V
5
6
7
8
9
10
11
12

System Control Schematic	
Q6001	F-4
Q6002	D-4
Q6003	D-7
Q6004	C-7
Q6005	C-8
Q6007	E-8
Q6008	E-10
Q6012	D-3
QR6001	D-3
QR6002	F-9
QR6003	F-10
QR6004	B-9
QR6005	E-7
QR6006	E-9
QR6007	F-11
QR6012	C-3
QR6018	C-9
IC6001	F-6
IC6002	F-4
IC6003	E-4
IC6004	F-8
IC6005	F-10

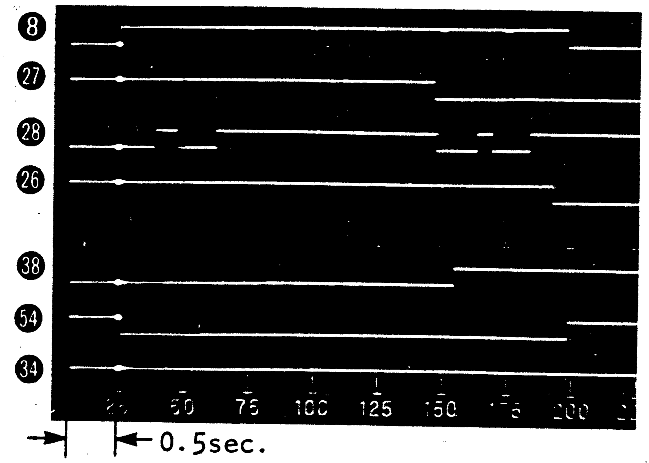
MAIN P.C. BOARD SYSTEM CONTROL SECTION ICs & TRANSISTORs INFORMATION



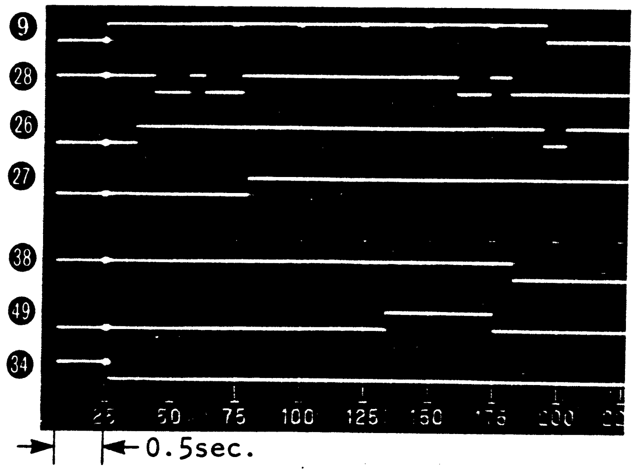
32
33
64
1
MN15342VGC
1
10
BA6209
5
8
4
1
AN6914
E C B
2SD639
2SB641
2SB643
E
C
B
2SA719
10K
B
C
10K
E
E C B
DTC114A
22K
B
C
22K
E
E C B
DTC124A
47K
B
C
47K
E
E C B
DTC144A

MICRO PROCESSOR (IC6001) MODE BY MODE TIMING CHART

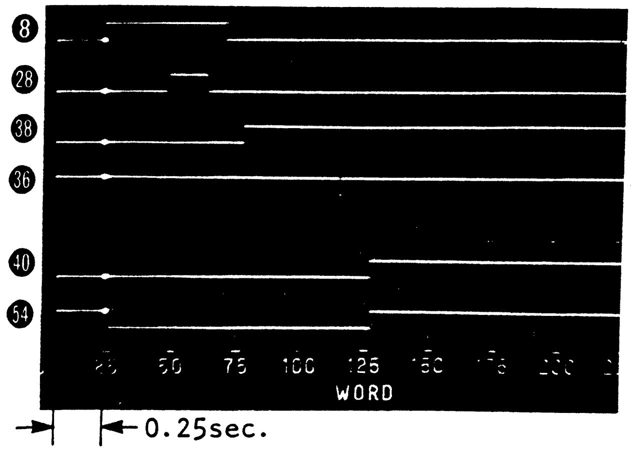
STOP → PLAY
Pin No.



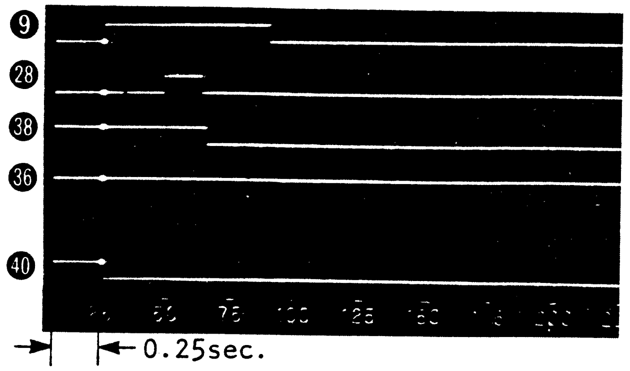
PLAY → STOP
Pin No.



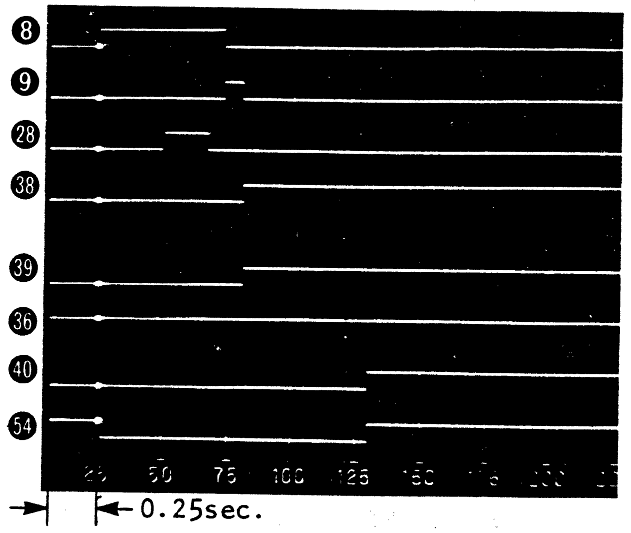
STOP → FF
Pin No.



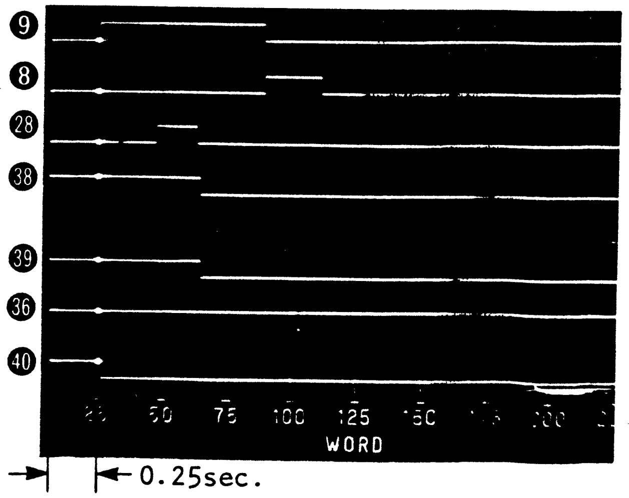
FF → STOP
Pin No.

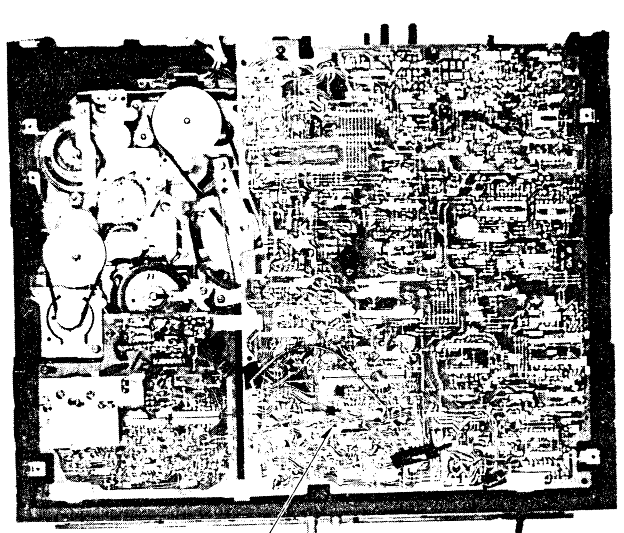


STOP → REW
Pin No.



REW → STOP
Pin No.

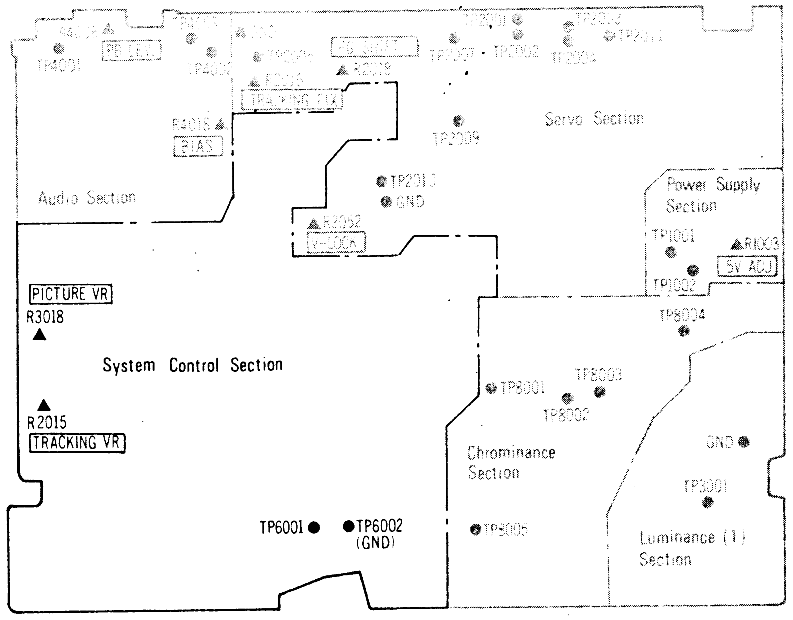




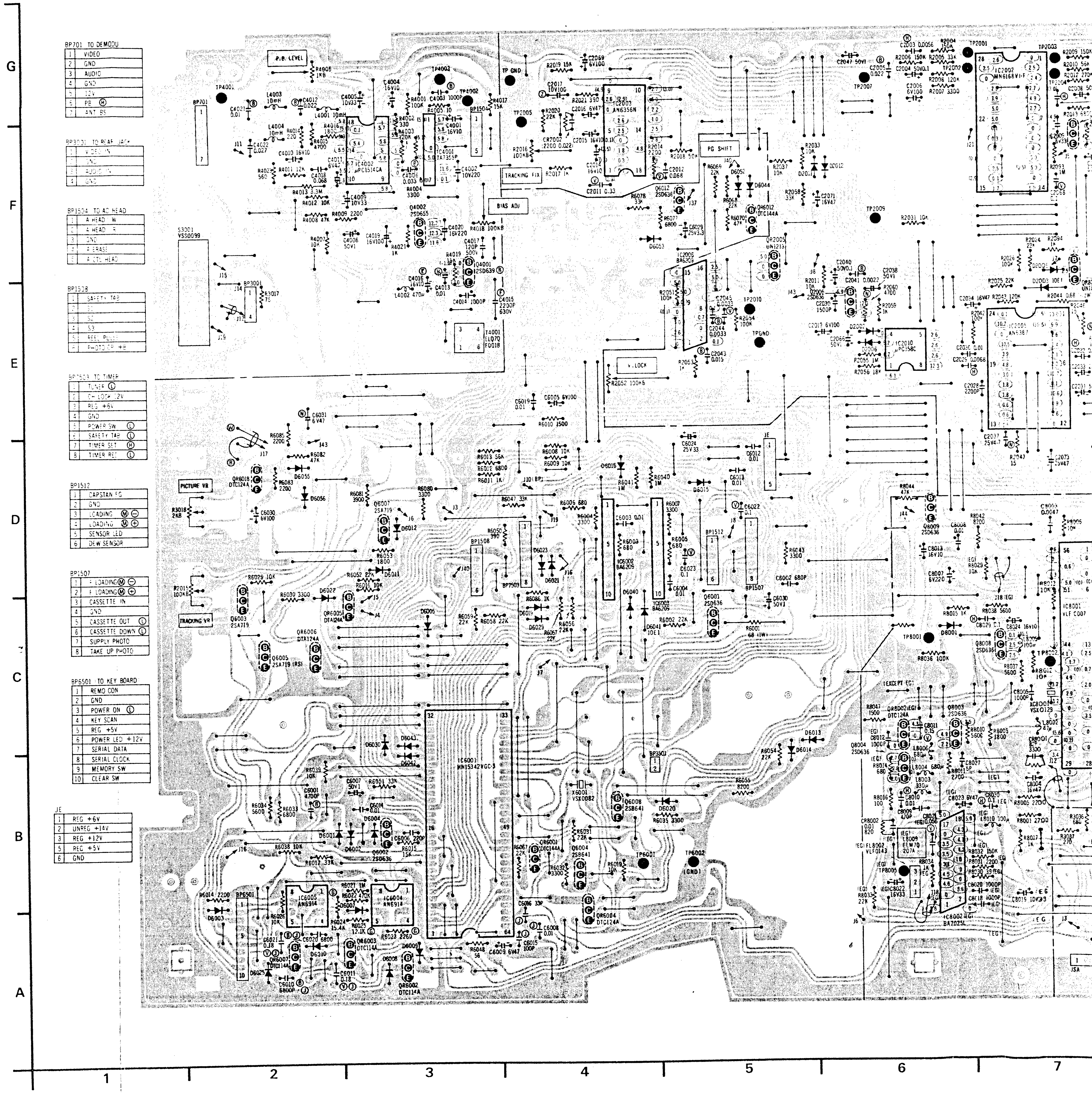
Main P.C.Board

Main C.B.A. (System Control Section)	
Q6001	C-5
Q6002	B-3
Q6003	C-2
Q6004	B-4
Q6005	C-2
Q6007	D-3
Q6008	B-4
Q6012	F-5
QR6001	B-4
QR6002	A-3
QR6003	A-3
QR6004	A-4
QR6005	C-3
QR6006	C-2
QR6007	A-2
QR6012	F-5
QR6018	D-2
IC6001	B-3
IC6002	C-4
IC6003	C-4
IC6004	A-3
IC6005	A-2

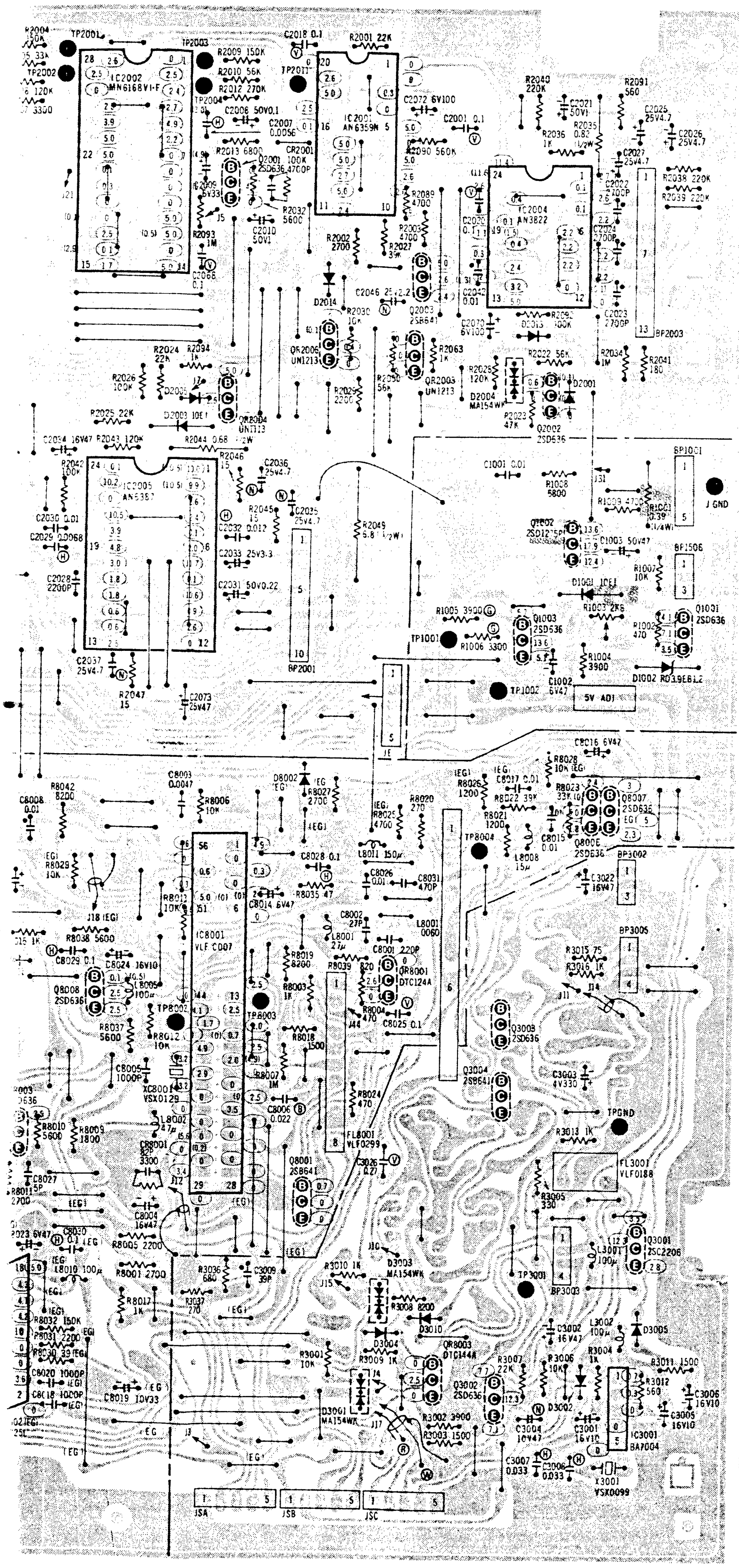
MAIN P.C.B UNIT


TP4001
PB LEV.
TP4002
TRACKING FIX
R2018
PG SHIFT
TP2001
TP2007
TP2002
TP2004
TP2011
R4018
BIAS
TP2009
Servo Section
TP2010
GND
Audio Section
R2052
V-LOCK
Power Supply Section
TP1001
R1003
5V ADJ
TP1002
PICTURE VR
R3018
System Control Section
R2015
TRACKING VR
TP8004
TP8001
TP8003
TP8002
Chrominance Section
GND
TP3001
TP6001
TP6002 (GND)
TP8005
Luminance (1) Section

MAIN P.C.BOARD UNIT (VEP03194E: NV-370-E/-B; VEP03194B: NV-370-EG) —


G
F
E
D
C
B
A
1
2
3
4
5
6
7
BP701 TO DEMODU
1 VIDEO
2 GND
3 AUDIO
4 GND
5 12V
6 PB Ⓗ
7 ANT BS
BP3001 TO REAR JACK
1 VIDEO IN
2 GND
3 AUDIO IN
4 GND
BP1504 TO AC HEAD
1 A HEAD W
2 A HEAD R
3 GND
4 A ERASE
5 A CTL HEAD
BP1508
1 SAFETY TAB
2 S1
3 S2
4 S3
5 REEL PULSE
6 PHOTO CP +B
BP1503 TO TIMER
1 TUNER Ⓛ
2 CH LOCK 12V
3 REG +6V
4 GND
5 POWER SW Ⓛ
6 SAFETY TAB Ⓛ
7 TIMER SET Ⓗ
8 TIMER REC Ⓛ
BP1512
1 CAPSTAN FG
2 GND
3 LOADING Ⓜ ⊖
4 LOADING Ⓜ ⊕
5 SENSOR LED
6 DEW SENSOR
BP1507
1 F LOADING Ⓜ ⊖
2 F LOADING Ⓜ ⊕
3 CASSETTE IN
4 GND
5 CASSETTE OUT Ⓛ
6 CASSETTE DOWN Ⓛ
7 SUPPLY PHOTO
8 TAKE UP PHOTO
BP6501 TO KEY BOARD
1 REMO CON
2 GND
3 POWER ON Ⓛ
4 KEY SCAN
5 REG +5V
6 POWER LED +12V
7 SERIAL DATA
8 SERIAL CLOCK
9 MEMORY SW
10 CLEAR SW
JE
1 REG +6V
2 UNREG +14V
3 REG +12V
5 REG +5V
6 GND
P.B. LEVEL
TP4001
TP4002
TP GND
TP2005
TP2007
TP2001
TP2003
TRACKING FIX
BIAS ADJ
PG SHIFT
TP2009
TP2010
TPGND
V. LOCK
PICTURE VR
R3018 2KB
TRACKING VR
R2015 100KB
IC6001 MN15342VGC3
TP6001
TP6002 (GND)
TP8001
TP8005
IC6005 AN6914
IC6004 AN6914
IC8002 BA7025L

370-EG) — System Control Section —



IC2002 MN6168VI-F
IC2001 AN6359N
IC2004 AN3822
IC2005 AN6351
IC8001 VLF C007
IC3001 BA7004
TP2001
TP2002
TP2003
TP1001
TP1002
TP8004
TP3001
TPGND
J GND
5V ADJ
BP2001
BP2003
BP1001
BP1506
BP3002
BP3003
BP3005
JSA
JSB
JSC

NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165.

BP2003 TO CAPTAN

1	M2
2	M3
3	H3−
4	———
5	H3+
6	H1−
7	VH+
8	H1+
9	M1
10	H2−
11	———
12	H2+
13	VH−

BP2001 TO CYLINDER

1	M2
2	VH+
3	[illegible]
4	M3
5	HEM
6	VH− GND
7	VM
8	[illegible]
9	[illegible]
10	M1

BP1001 TO TRANS [illegible]

1	UNREG 12V
2	———
3	GND
4	UNREG 18V
5	UNREG 45V

BP1506 TO CYL HEATER

1	E +6V
2	C 6.6V
3	B UN REG 14V

BP3002 TO REAR JACK

1	AUDIO OUT
2	GND
3	VIDEO OUT

BP3005 TO RF CON

1	GND
2	AUDIO OUT
3	GND
4	VIDEO OUT

BP3003 TO REAR JACK

1	TEST Ⓗ
2	12V
3	COLOUR Ⓗ
4	CAMERA PAUSE

JSC

1	PICTURE B
2	EXP. REC 5V
3	PICTURE A
4	HEAD SW
5	GND

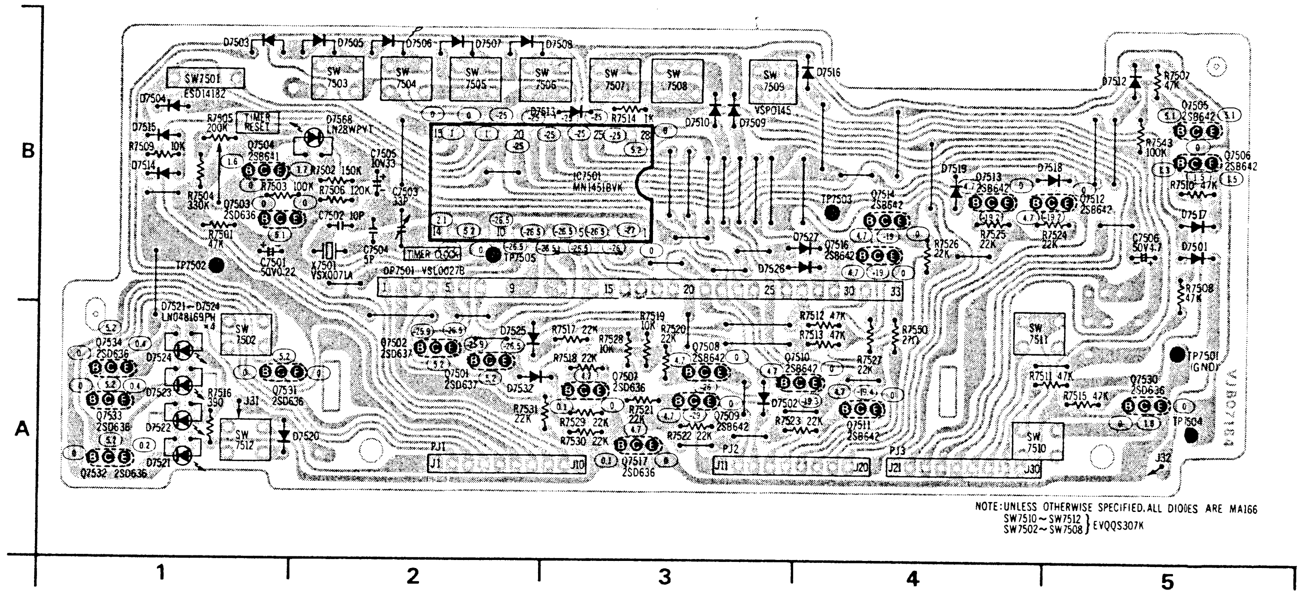
JSB

1	+5V
2	VIDEO OUT
3	REC Ⓗ EE Ⓗ
4	VIDEO IN
5	HSS

JSA

1	GND
2	D.REC 12V
3	PB.CHROMA IN
4	REC.CHROMA OUT
5	PB.CHROMA OUT

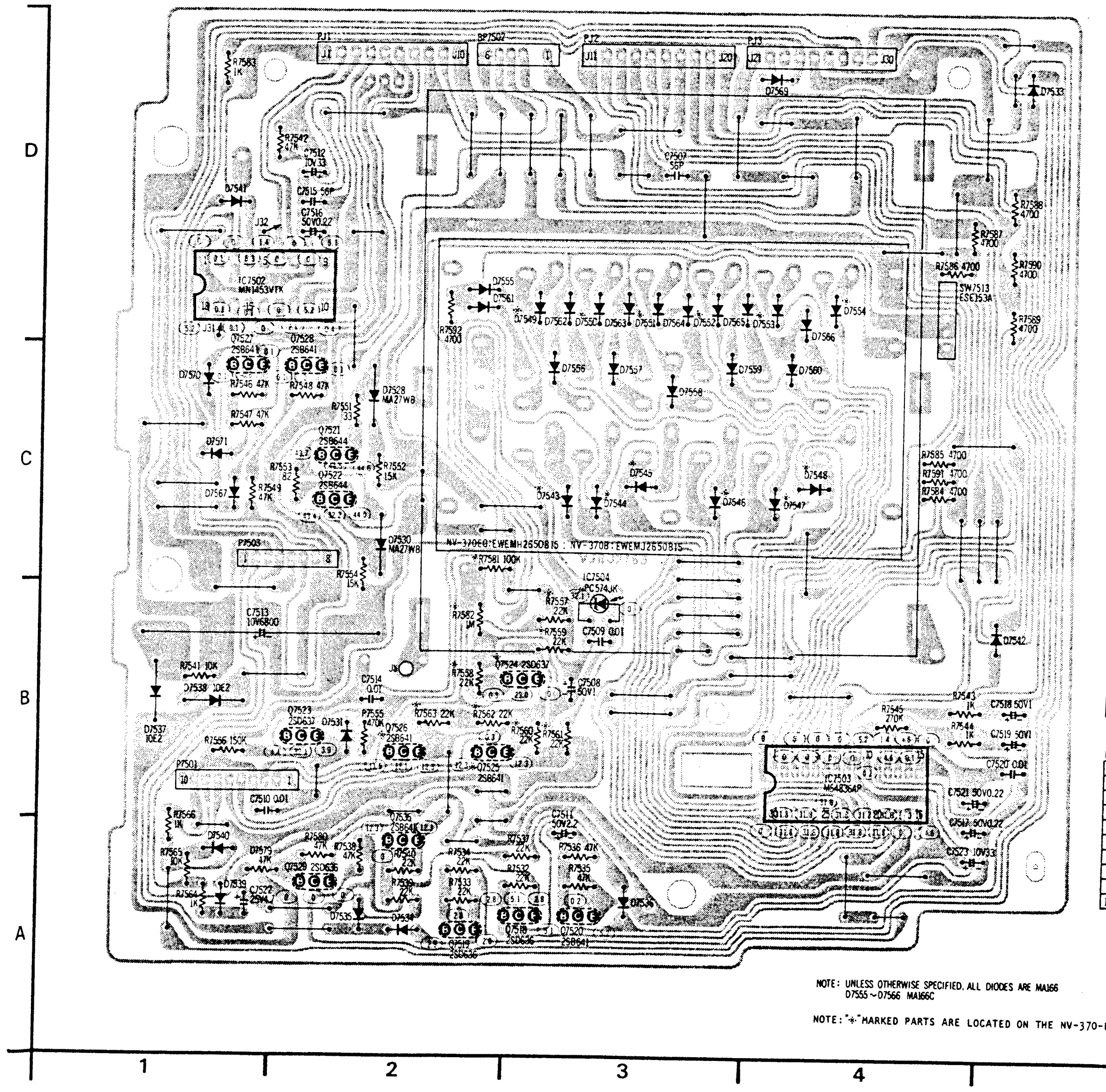
TIMER P.C.BOARD UNIT (VEP07184A: NV-370-EG/-B)



B
A
1
2
3
4
5
IC7501 MN1451BVK
SW7501
TP7501 GND
TP7502
TP7504

NOTE: UNLESS OTHERWISE SPECIFIED. ALL DIODES ARE MA166
SW7510 ~ SW7512 } EVQQS307K
SW7502 ~ SW7508 } EVQQS307K

CH. PRESET P.C.BOARD UNIT
(VEP07185A: NV-370-B; VEP07185B: NV-370-EG)



D
C
B
A
1
2
3
4
5
IC7502 MN1453VFK
IC7503
IC7504

BP7502

1	⊖ 3V
2	——
3	AC 3.8V
4	AC 3.8V
5	GND
6	UNREG 45V

P7503

8	T.OUT
7	T.SET
6	SEFETI TAB
5	POWER ON Ⓛ
4	GND
3	REG 6V
2	CH LOCK Ⓗ
1	TUNER Ⓛ

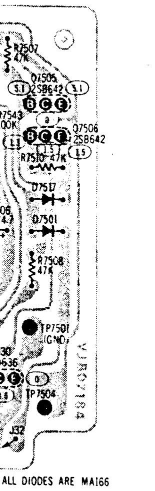
P7501

1	BT
2	BV
3	BS
4	GND
5	BU
6	12.7V
7	AFC DEF
8	AUDIO DEF
9	GND
10	——

NOTE: UNLESS OTHERWISE SPECIFIED. ALL DIODES ARE MA166
D7555 ~ D7566 MA166C

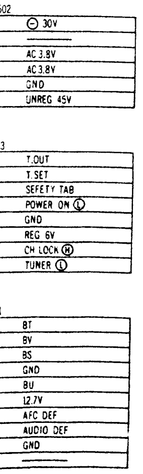
NOTE: "*" MARKED PARTS ARE LOCATED ON THE NV-370-EG ONLY.

/-B)


R7502
47K
Q7505 2SB642
Q7506 2SB642
R7543
D7517
D7501
R7508 47K
TP7501 (GND)
TP7504
VJR07184
ALL DIODES ARE MA166

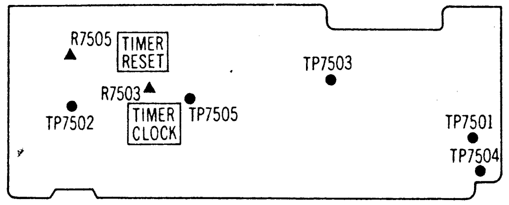
5

370-EG)

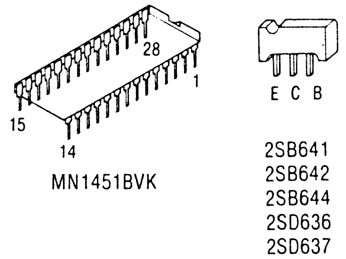

⊝ 30V
AC 3.8V
AC 3.8V
GND
UNREG 45V
T.OUT
T.SET
SEFETY TAB
POWER ON Ⓛ
GND
REG 6V
CH LOCK Ⓗ
TUNER Ⓛ
BT
BV
BS
GND
BU
12.7V
AFC DEF
AUDIO DEF
GND

ONLY.

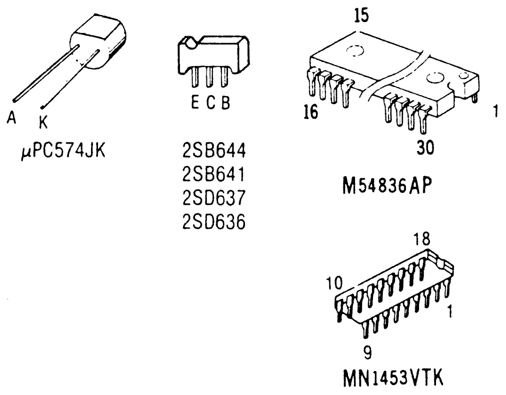
TIMER P.C.B UNIT (NV-370 EG/B)


R7505
TIMER RESET
R7503
TIMER CLOCK
TP7502
TP7505
TP7503
TP7501
TP7504

TIMER P.C. BOARD ICs & TRANSISTORs INFORMATION


28
1
15
14
MN1451BVK
E C B
2SB641
2SB642
2SB644
2SD636
2SD637

CH PRESET P.C. BOARD ICs & TRANSISTORs INFORMATION

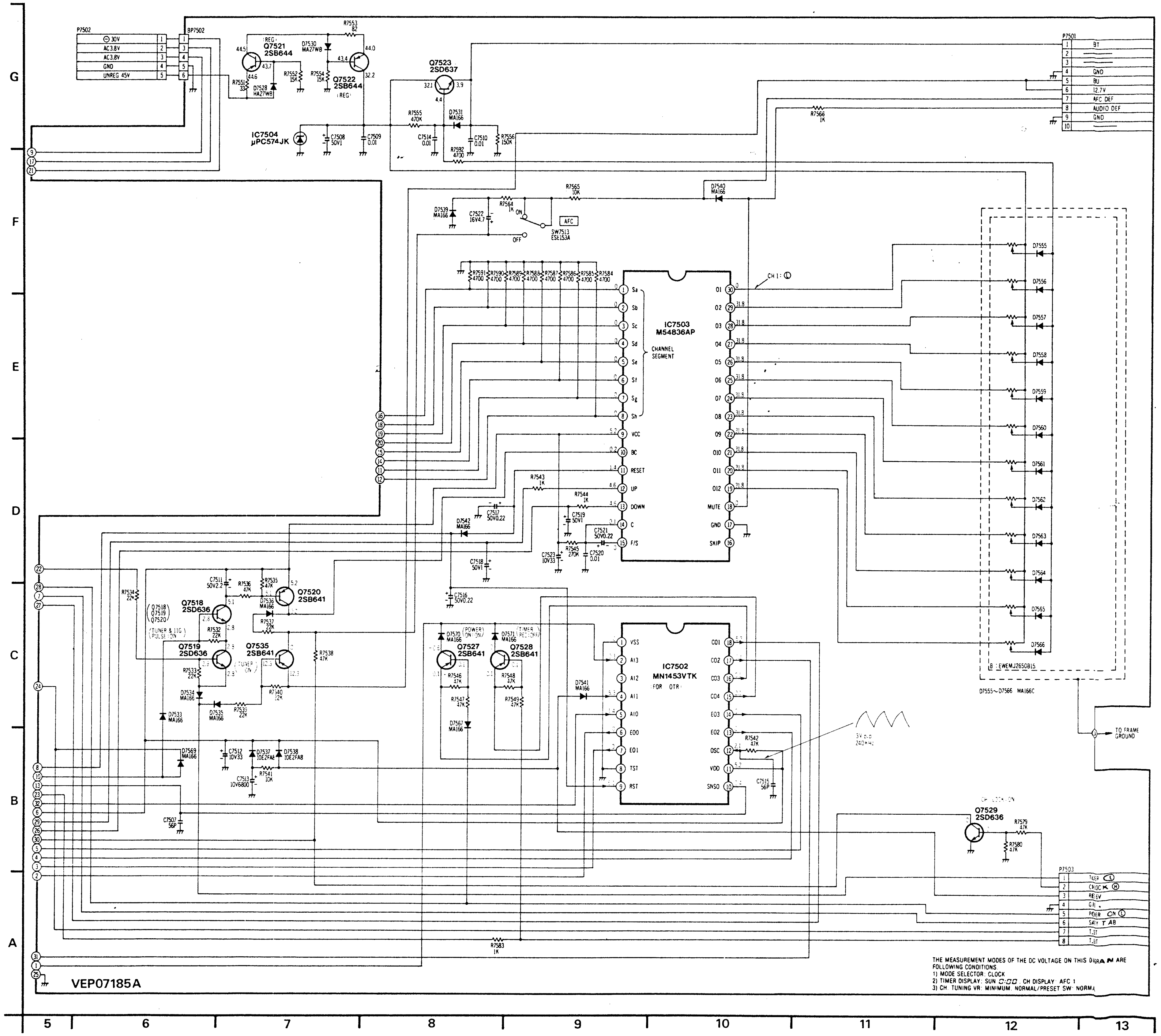

A K
μPC574JK
E C B
2SB644
2SB641
2SD637
2SD636
15
16
1
30
M54836AP
18
10
1
9
MN1453VTK

Timer & CH. Preset Schematic	
Q7501	F-2
Q7502	F-3
Q7503	C-1
Q7504	C-2
Q7505	D-3
Q7506	D-4
Q7507	E-5
Q7508	E-5
Q7509	E-6
Q7510	E-6
Q7511	E-6
Q7512	E-6
Q7513	E-7
Q7514	E-7
Q7516	E-7
Q7517	F-7
Q7518	C-7
Q7519	C-7
Q7520	C-7
Q7521	G-7
Q7522	G-7
Q7523	G-8
Q7524(EG)	G-9
Q7525(EG)	G-9
Q7526(EG)	G-10
Q7527	C-8
Q7528	C-8
Q7529	B-12
Q7530	A-2
Q7531	A-3
Q7532	A-4
Q7533	A-4
Q7534	A-4
Q7535	C-7
IC7501	E-3
IC7502	C-10
IC7503	E-10
IC7504	G-7

Timer C.B.A.	
Q7501	A-2
Q7502	A-2
Q7503	B-1
Q7504	B-1
Q7505	B-5
Q7506	B-5
Q7507	A-3
Q7508	A-3
Q7509	A-3
Q7510	A-4
Q7511	A-4
Q7512	B-4
Q7513	B-4
Q7514	B-4
Q7516	B-4
Q7517	A-3
Q7530	A-5
Q7531	A-1
Q7532	A-1
Q7533	A-1
Q7534	A-1
IC7501	B-3

CH. Preset C.B.A.	
Q7518	A-3
Q7519	A-2
Q7520	A-3
Q7521	C-2
Q7522	C-2
Q7523	B-2
Q7524(EG)	B-3
Q7525(EG)	B-2
Q7526(EG)	B-2
Q7527	C-1
Q7528	C-2
Q7529	A-2
Q7535	A-2
IC7502	D-2
IC7503	B-4
IC7504	B-3

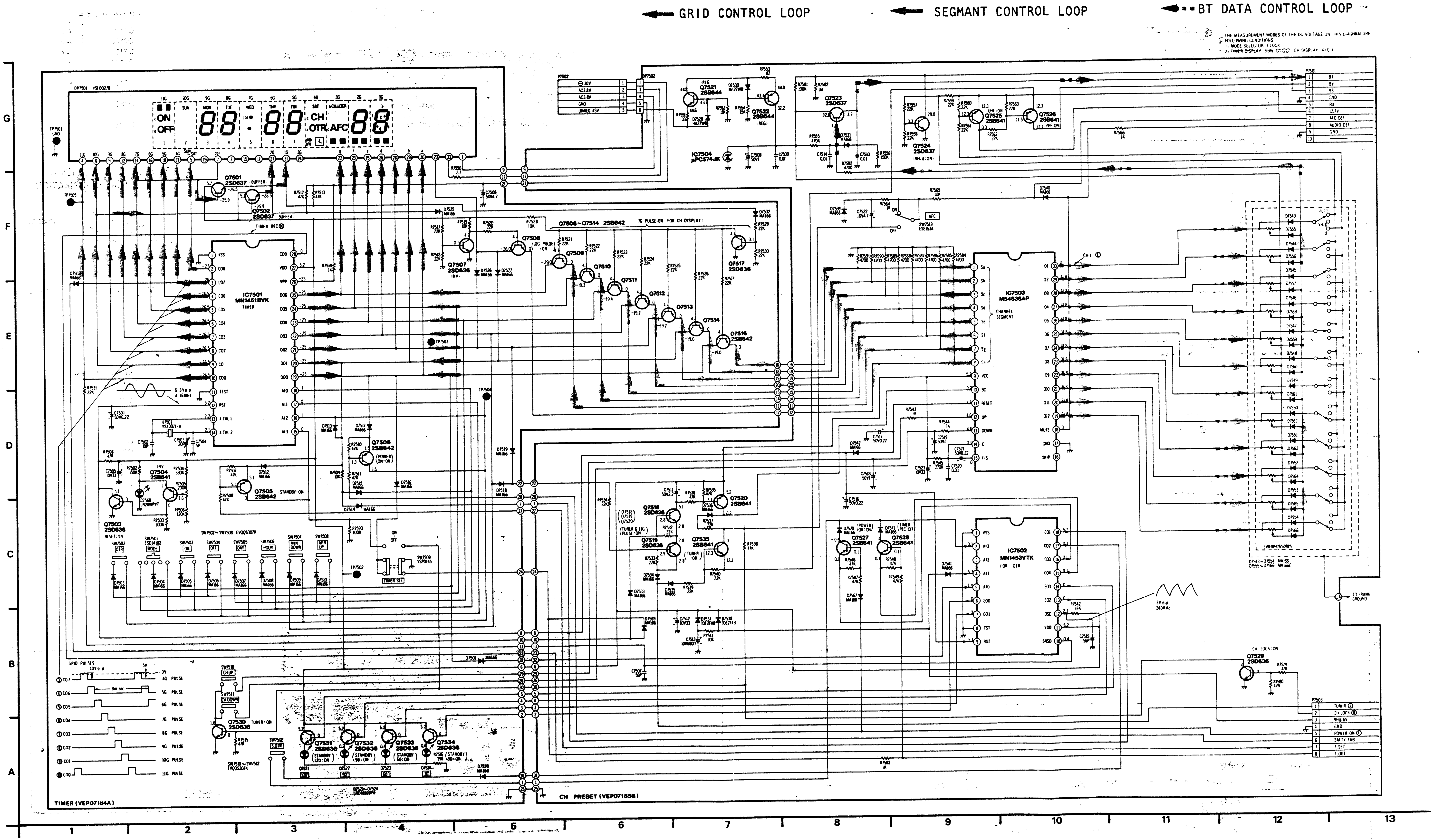
CH. PRESET SCHEMATIC DIAGRAM (NV-370-B)


G
F
E
D
C
B
A
5
6
7
8
9
10
11
12
13
P7502
⊝ 30V
AC 3.8V
AC 3.8V
GND
UNREG 45V
BP7502
Q7521 2SB644
Q7522 2SB644
Q7523 2SD637
IC7504 μPC574JK
R7553 82
D7530 MA27WB
D7528 MA27WB
R7555 470K
D7531 MA166
R7556 150K
P7501
BT
GND
BU
12.7V
AFC DEF
AUDIO DEF
GND
R7566 1K
R7565 10K
D7540 MA166
D7539 MA166
C7522 16V4.7
R7564 1K
ON
OFF
AFC
SW7513 ESL53A
IC7503 M54836AP
CHANNEL SEGMENT
Sa
Sb
Sc
Sd
Se
Sf
Sg
Sh
VCC
BC
RESET
UP
DOWN
C
F/S
O1
O2
O3
O4
O5
O6
O7
O8
O9
O10
O11
O12
MUTE
GND
SKIP
CH 1 : Ⓛ
D7555
D7556
D7557
D7558
D7559
D7560
D7561
D7562
D7563
D7564
D7565
D7566
B EWEMJ265OB15
D7555~D7566 MA166C
R7543 1K
R7544 1K
D7542 MA166
Q7518 2SD636
Q7519 2SD636
Q7520 2SB641
Q7535 2SB641
(Q7518 Q7519 Q7520 PULSE ON)
(TUNER & LTC)
(TIMER ON)
Q7527 2SB641
Q7528 2SB641
(POWER ON)
D7570 MA166
D7571 MA166
IC7502 MN1453VTK
FOR OTR
VSS
A13
A12
A11
A10
E00
E01
TST
RST
CO1
CO2
CO3
CO4
EO3
EO2
OSC
VDD
SNSO
D7541 MA166
D7569 MA166
D7533 MA166
D7534 MA166
D7537 1DE2FA8
D7538 1DE2FA8
R7542 47K
3V p-p 240Hz
TO FRAME GROUND
Q7529 2SD636
CH LOCK ON
R7579 47K
R7580 47K
R7583 1K
P7503
T.OUT
T.SET
SAFETY TAB
POWER ON Ⓛ
GND
REG 6V
CH LOCK Ⓗ
TUNER Ⓛ
VEP07185A

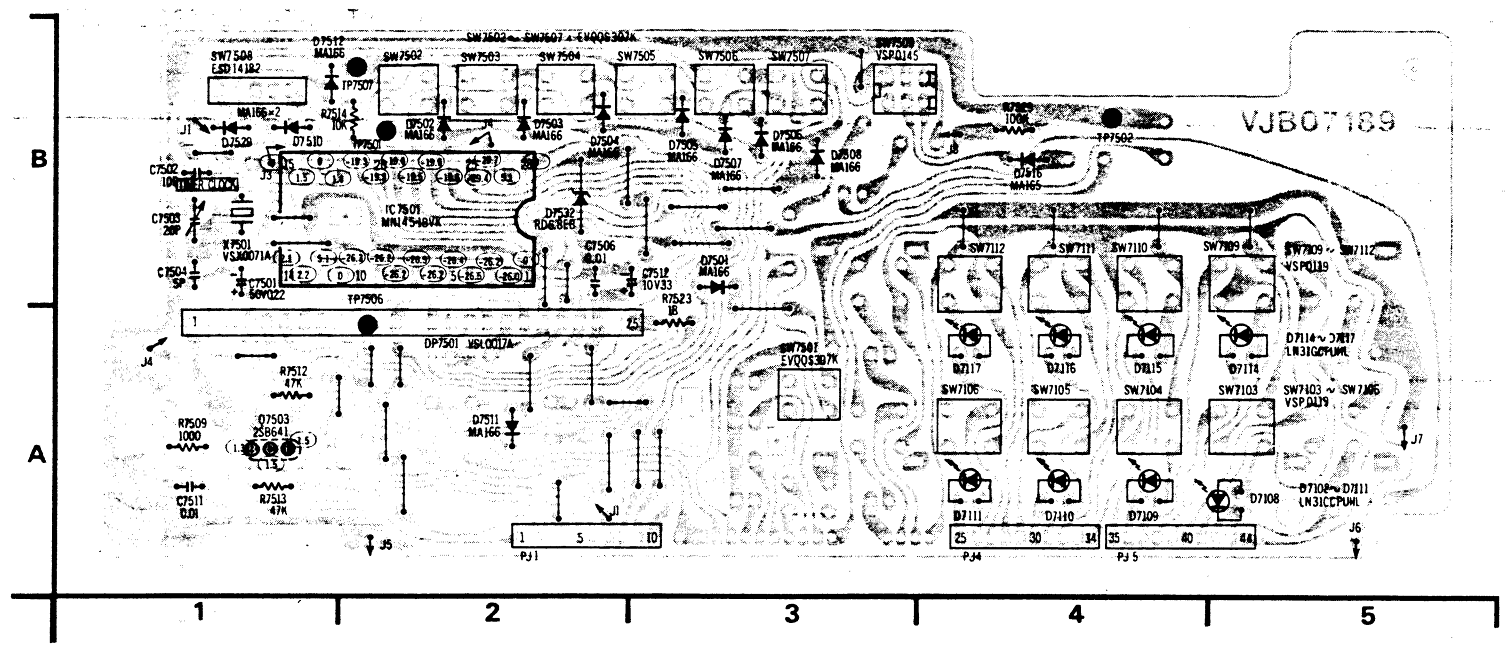
THE MEASUREMENT MODES OF THE DC VOLTAGE ON THIS DIAGRAM ARE FOLLOWING CONDITIONS.
1) MODE SELECTOR: CLOCK
2) TIMER DISPLAY: SUN 0:00 . CH DISPLAY: AFC 1
3) CH. TUNING VR: MINIMUM. NORMAL/PRESET SW: NORMAL

TIMER SCHEMATIC DIAGRAM (NV-370-EG/-B)/CH PRESET SCHEMATIC DIAGRAM (NV-370-EG)

THE MEASUREMENT MODES OF THE DC VOLTAGE ON THIS DIAGRAM ARE FOLLOWING CONDITIONS
1) MODE SELECTOR CLOCK
2) TIMER DISPLAY SUN 0:00 CH DISPLAY AFC 1

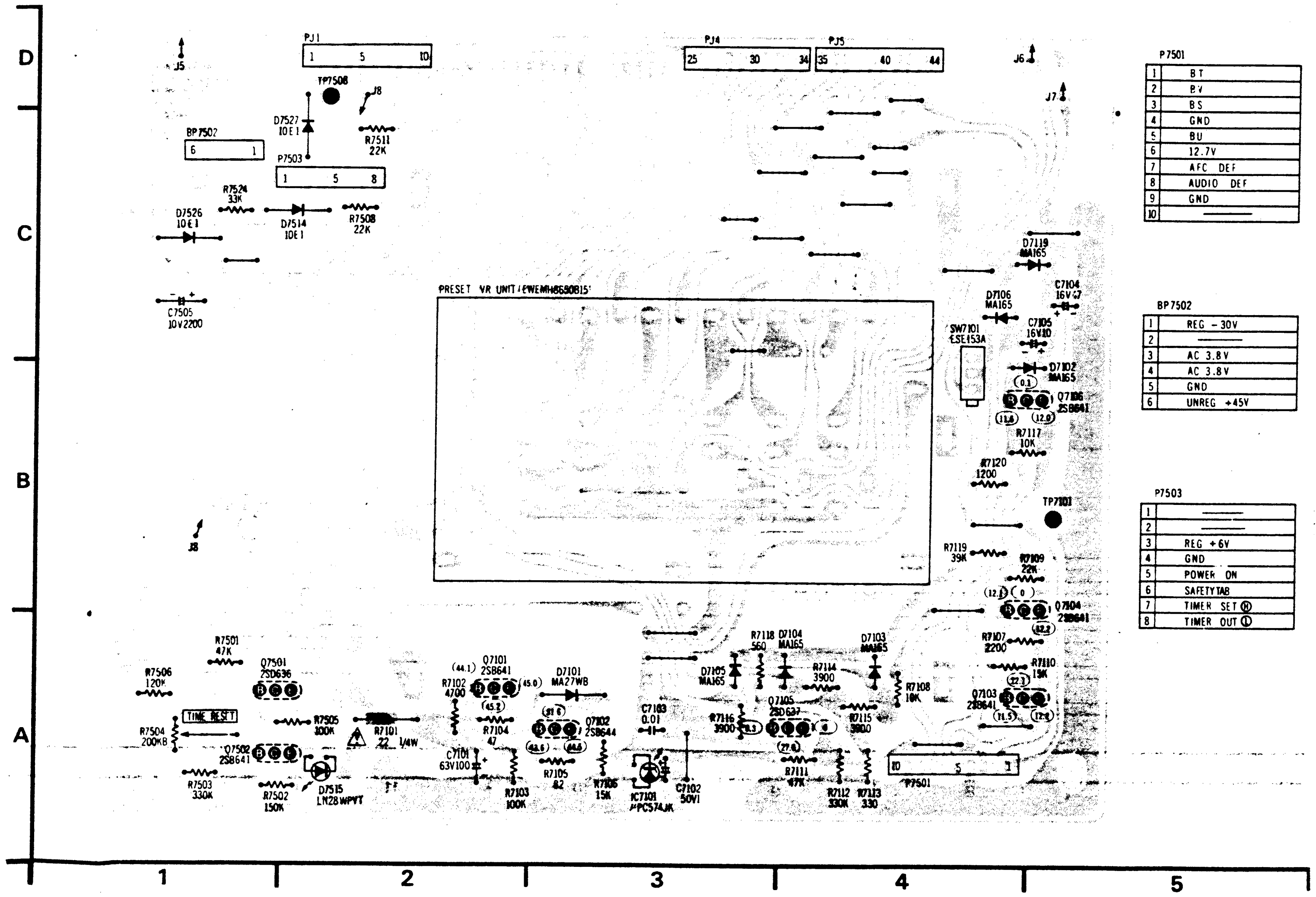

GRID CONTROL LOOP
SEGMANT CONTROL LOOP
BT DATA CONTROL LOOP
DP7501 YSL0027B
ON
OFF
CH
OTR
AFC
IC7501 MN1451BVK TIMER
IC7502 MN1453VTK FOR OTR
IC7503 M54836AP CHANNEL SEGMENT
IC7504 μPC574JK
Q7501 2SD637 BUFFER
Q7502 2SD637 BUFFER
Q7506~Q7514 2SB642
Q7517 2SD636
Q7521 2SB644
Q7522 2SB644
Q7523 2SD637
Q7524 2SD637
Q7525 2SB641
Q7526 2SB641
Q7529 2SD636
Q7530 2SD636
Q7531 2SD636
Q7532 2SD636
Q7533 2SD636
Q7534 2SD636
P7501
BT
BV
BS
GND
BU
12.7V
AFC DEF
AUDIO DEF
GND
P7502
P7503
TIMER ①
CH LOCK ①
REG 6V
GND
POWER ON ①
SAFTY TAB
T SET
T OUT
SW7501 MODE
SW7502 OTR
SW7503 ON
SW7504 OFF
SW7505 DAY
SW7506 HOUR
SW7507 MIN DOWN
SW7508 MIN UP
SW7510 CH UP
SW7511 CH DOWN
SW7512 S.OTR
TIMER SET
GRID PULSES
COO 11G PULSE
CO1 10G PULSE
CO2 9G PULSE
CO3 8G PULSE
CO4 7G PULSE
CO5 6G PULSE
CO6 5G PULSE
CO7 4G PULSE
6.3Vp-p 4.16MHz
3Vp-p 260kHz
TO FRAME GROUND
TIMER (VEP07184A)
CH PRESET (VEP07185B)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13

TIMER P.C.BOARD UNIT (VEP07189A:



VJB07189
SW7508
SW7502
SW7503
SW7504
SW7505
SW7506
SW7507
SW7509 VSPQ145
IC7501 MN1451BVK
TP7507
TP7501
TP7502
TP7505
TP7506
TIMER CLOCK
DP7501 VSL0017A
SW7112
SW7111
SW7110
SW7109
SW7106
SW7105
SW7104
SW7103
D7114 ~ D7117 LN31GCPUML
D7108 ~ D7111 LN31CCPUML
Q7503 2SB641
R7509 1000
R7512 47K
R7513 47K
C7511 0.01
D7511 MA166
X7501 VSX0071A
PJ1
PJ4
PJ5
J4
J5
J6
J7
B
A
1
2
3
4
5

CH. PRESET P.C.BOARD UNIT (VEP07190A:



PJ1
PJ4
PJ5
TP7508
BP7502
P7503
PRESET VR UNIT (EWEMH66R0B15)
SW7101 ESE153A
TP7101
IC7101 μPC574JK
Q7101 2SB641
Q7102 2SB644
Q7103 2SB641
Q7104 2SB641
Q7105 2SD637
Q7106 2SB641
Q7501 2SD636
Q7502 2SB641
D7515 LN28WPYT
D7101 MA27WB
TIME RESET
P7501
J5
J6
J7
J8
D
C
B
A
1
2
3
4
5

P7501

1	BT
2	BV
3	BS
4	GND
5	BU
6	12.7V
7	AFC DEF
8	AUDIO DEF
9	GND
10	———

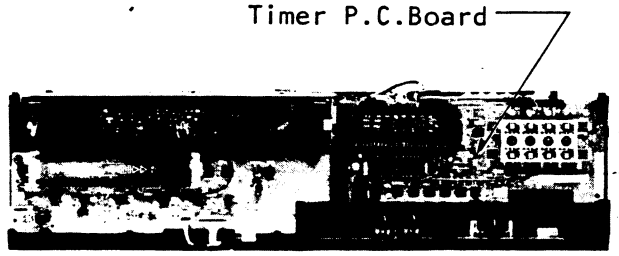
BP7502

1	REG −30V
2	———
3	AC 3.8V
4	AC 3.8V
5	GND
6	UNREG +45V

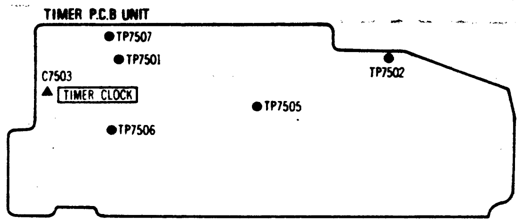
P7503

1	———
2	———
3	REG +6V
4	GND
5	POWER ON
6	SAFETY TAB
7	TIMER SET Ⓗ
8	TIMER OUT Ⓛ

Timer P.C.Board

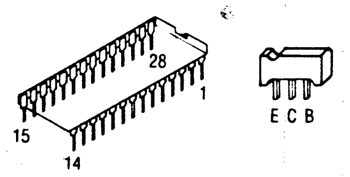


CH Preset C.B.A.	
Q7101	A-2
Q7102	A-3
Q7103	A-4
Q7104	B-4
Q7105	A-4
Q7106	B-4
Q7501	A-2
Q7502	A-2
IC7101	A-3



TIMER P.C.B UNIT
TP7507
TP7501
TP7502
C7503
TIMER CLOCK
TP7505
TP7506

TIMER P.C. BOARD ICs & TRANSISTORs INFORMATION



28
1
15
14
E C B

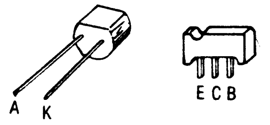
MN1451BVK

2SB641

Timer C.B.A.	
Q7503	A-1
IC7501	B-2

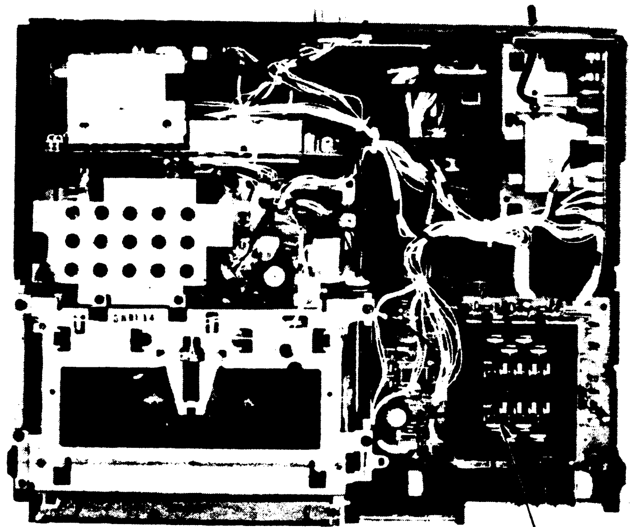
Timer & CH Preset Schematic	
Q7101	C-9
Q7102	C-9
Q7103	D-8
Q7104	D-7
Q7105	C-8
Q7106	B-7
Q7501	A-8
Q7502	B-8
Q7503	B-3
IC7101	C-8
IC7501	D-2

CH PRESET P.C. BOARD ICs & TRANSISTORs INFORMATION

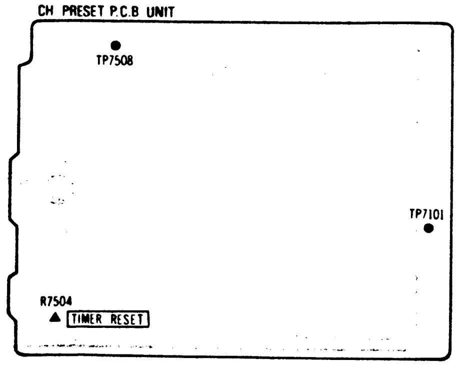


μPC574JK

2SB644
2SB641
2SD637
2SD636

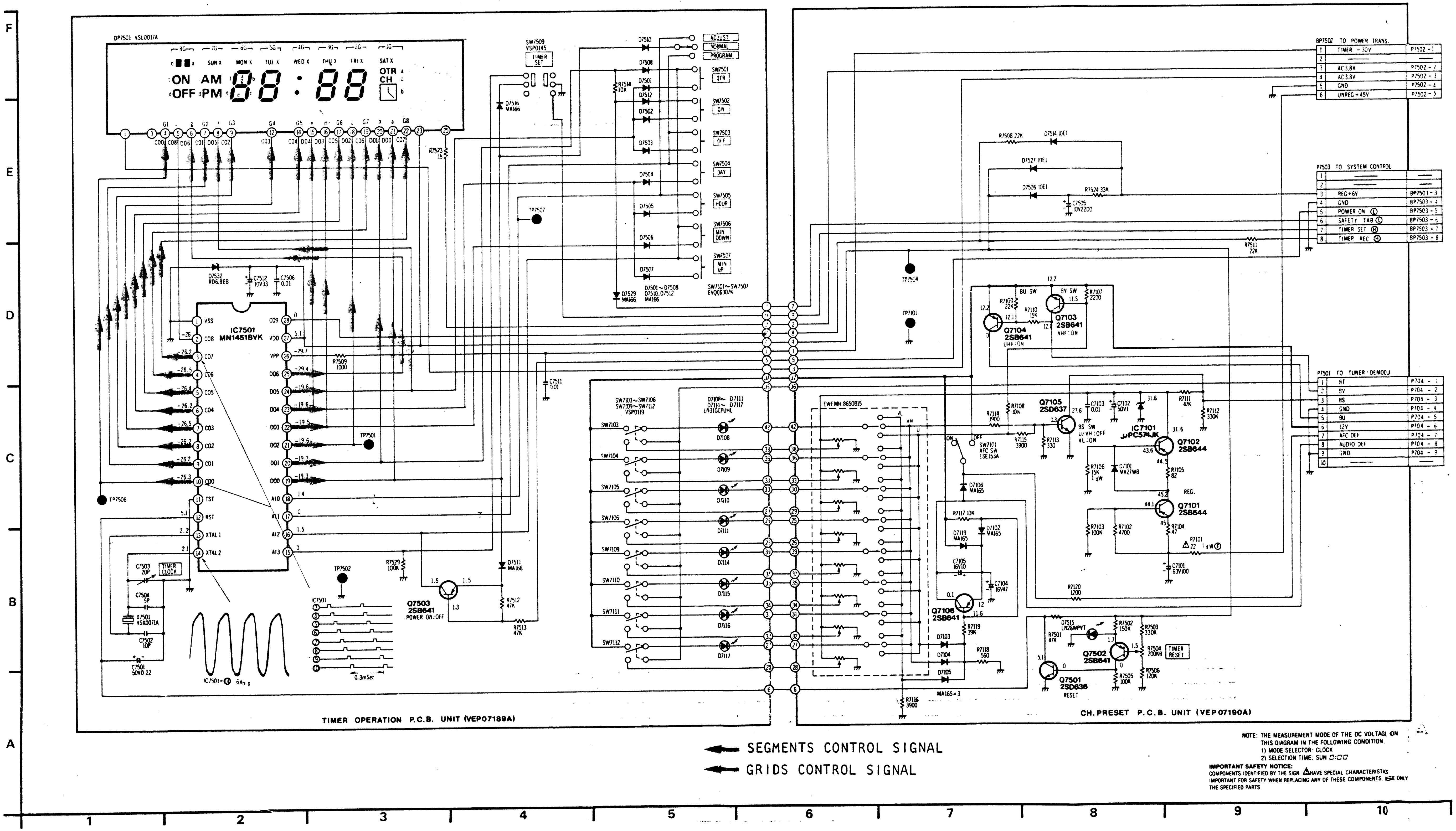


CH Preset P.C.Board



CH PRESET P.C.B UNIT
TP7508
TP7101
R7504
TIMER RESET

TIMER & CH. PRESET SCHEMATIC DIAGRAM (NV-370-E)


DP7501 VSL0017A
ON AM
OFF PM
SUN MON TUE WED THU FRI SAT
OTR CH
IC7501 MN1451BVK
TP7501
TP7502
TP7506
TP7507
SW7509 VSP0145 TIMER SET
ADJUST
NORMAL
PROGRAM
SW7501 OTR
SW7502 ON
SW7503 OFF
SW7504 DAY
SW7505 HOUR
SW7506 MIN DOWN
SW7507 MIN UP
Q7503 2SB641 POWER ON:OFF
X7501 VSX0071A
TIMER CLOCK
IC7501-⑭ 6Vp-p
0.3mSec
TIMER OPERATION P.C.B. UNIT (VEP07189A)
SW7103~SW7106 SW7109~SW7112 VSP0119
D7108~D7111 D7114~D7117 LN31GCPUHL
EWEMH 8650B15
Q7103 2SB641 VHF:ON
Q7104 2SB641 UHF:ON
Q7105 2SD637
BS SW U/VH:OFF VL:ON
SW7101 AFC SW ESE153A
IC7101 μPC574JK
Q7102 2SB644
Q7101 2SB644
REG.
Q7106 2SB641
Q7501 2SD636 RESET
Q7502 2SB641
D7515 LN28WPVT
TIMER RESET
MA165×3
CH. PRESET P.C.B. UNIT (VEP07190A)
BP7502 TO POWER TRANS.
TIMER -30V
AC 3.8V
AC 3.8V
GND
UNREG +45V
P7503 TO SYSTEM CONTROL
REG+6V
GND
POWER ON Ⓛ
SAFETY TAB Ⓛ
TIMER SET Ⓗ
TIMER REC Ⓗ
P7501 TO TUNER/DEMODU
BT
9V
BS
GND
BU
12V
AFC DEF
AUDIO DEF
GND
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
10

◀ SEGMENTS CONTROL SIGNAL

◀ GRIDS CONTROL SIGNAL

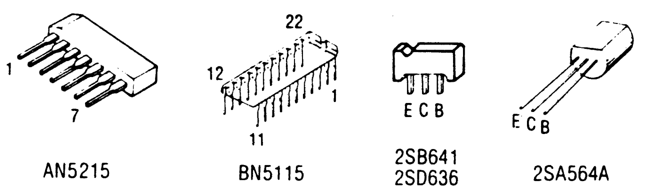
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IN THE FOLLOWING CONDITION.
1) MODE SELECTOR: CLOCK
2) SELECTION TIME: SUN 0:00

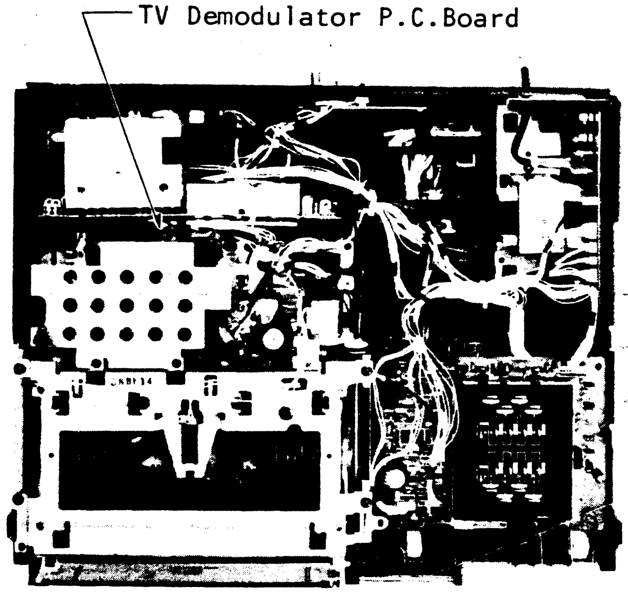
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN △ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SPECIFIED PARTS.

TV DEMODULATOR P.C.BOARD UNIT (VEP07186E: NV-370-E/-EG)

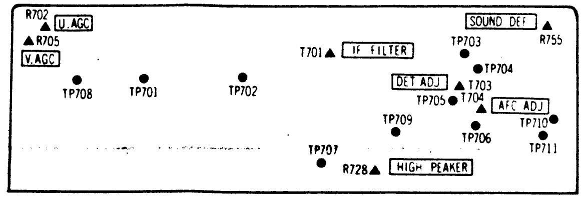
TV Demodulator C.B.A.	
Q701	B-4
Q702	B-4
Q703	B-5
Q7006	B-6
IC701	B-5
IC702	C-6

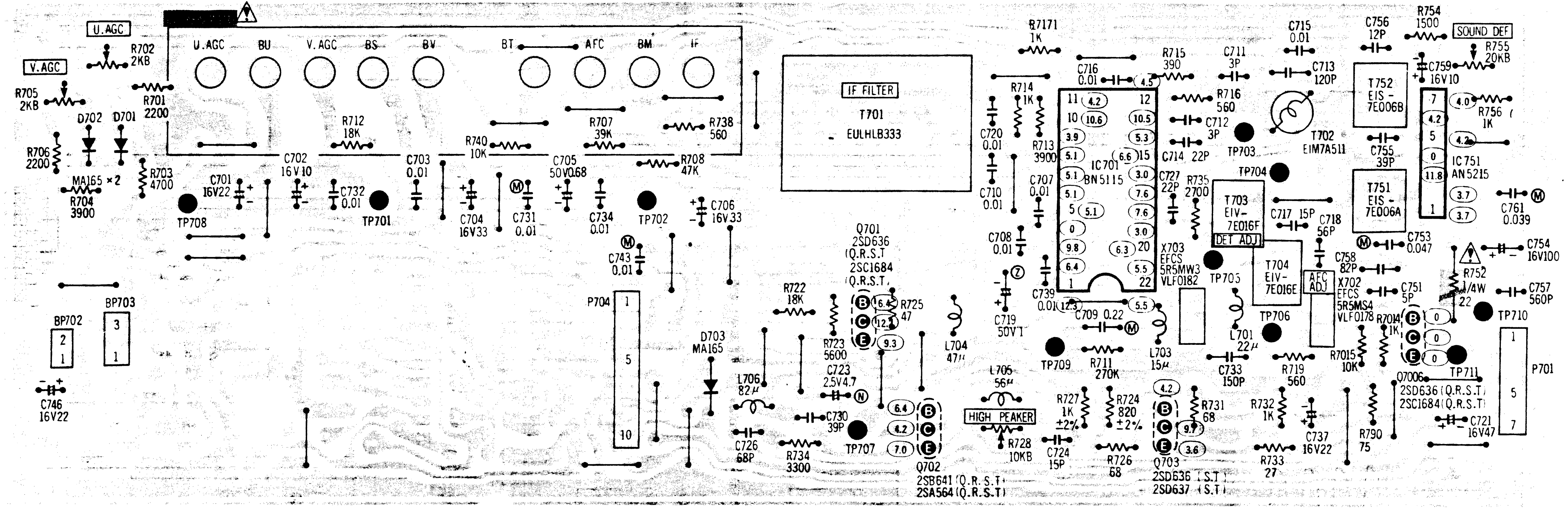
TV DEMODULATOR P.C. BOARD ICs & TRANSISTORs INFORMATION


1
7
AN5215
22
12
1
11
BN5115
E C B
2SB641
2SD636
E C B
2SA564A


TV Demodulator P.C.Board

TV DEMODULATOR P C B UNIT


R702
U.AGC
R705
V.AGC
TP708
TP701
TP702
T701
IF FILTER
SOUND DEF
R755
TP703
TP704
DET ADJ
T703
TP705
T704
AFC ADJ
TP709
TP706
TP710
TP711
TP707
R728
HIGH PEAKER


C
B
A
1
2
3
4
5
6
U.AGC
V.AGC
R702 2KB
R705 2KB
R701 2200
D702
D701
R706 2200
MA165 ×2
R703 4700
R704 3900
TP708
U.AGC
BU
V.AGC
BS
BV
BT
AFC
BM
IF
C701 16V22
C702 16V10
R712 18K
C732 0.01
TP701
C703 0.01
R740 10K
C704 16V33
C731 0.01
R707 39K
C705 50V0.68
C734 0.01
TP702
R738 560
R708 47K
C706 16V33
C743 0.01
BP702
BP703
C746 16V22
P704
D703 MA165
L706 82μ
C726 68P
R734 3300
C730 39P
TP707
IF FILTER
T701
EULHLB333
Q701
2SD636 (Q.R.S.T
2SC1684 (Q.R.S.T.
R722 18K
R723 5600
R725 47
C723 2.5V4.7
Q702
2SB641 (Q.R.S.T)
2SA564 (Q.R.S.T)
L704 47μ
C719 50V1
L705 56μ
HIGH PEAKER
R728 10KB
R7171 1K
R714 1K
R713 3900
C720 0.01
C710 0.01
C708 0.01
C739 0.01
C716 0.01
IC701 BN5115
C707 0.01
C709 0.22
R711 270K
TP709
C724 15P
R727 1K ±2%
R724 820 ±2%
R726 68
R715 390
C711 3P
R716 560
C712 3P
C714 22P
C727 22P
R735 2700
X703 EFCS 5R5MW3 VLF0182
L703 15μ
R731 68
Q703
2SD636 (S.T)
2SD637 (S.T)
C715 0.01
C713 120P
T702 EIM7A511
TP703
TP704
T703 EIV-7E016F
DET ADJ
C717 15P
C718 56P
TP705
T704 EIV-7E016E
AFC ADJ
L701 22μ
C733 150P
TP706
R719 560
R732 1K
C737 16V22
R733 27
C756 12P
R754 1500
SOUND DEF
R755 20KB
C759 16V10
T752 EIS-7E006B
C755 39P
T751 EIS-7E006A
R756 1K
IC751 AN5215
C761 0.039
C753 0.047
C754 16V100
C758 82P
X702 EFCS 5R5MS4 VLF0178
C751 5P
R7014 1K
R7015 10K
R752 1/4W 22
C757 560P
TP710
TP711
Q7006
2SD636 (Q.R.S.T)
2SC1684 (Q.R.S.T)
C721 16V47
R790 75
P701

BP702	
1	12.0V Ⓕ
2	GND

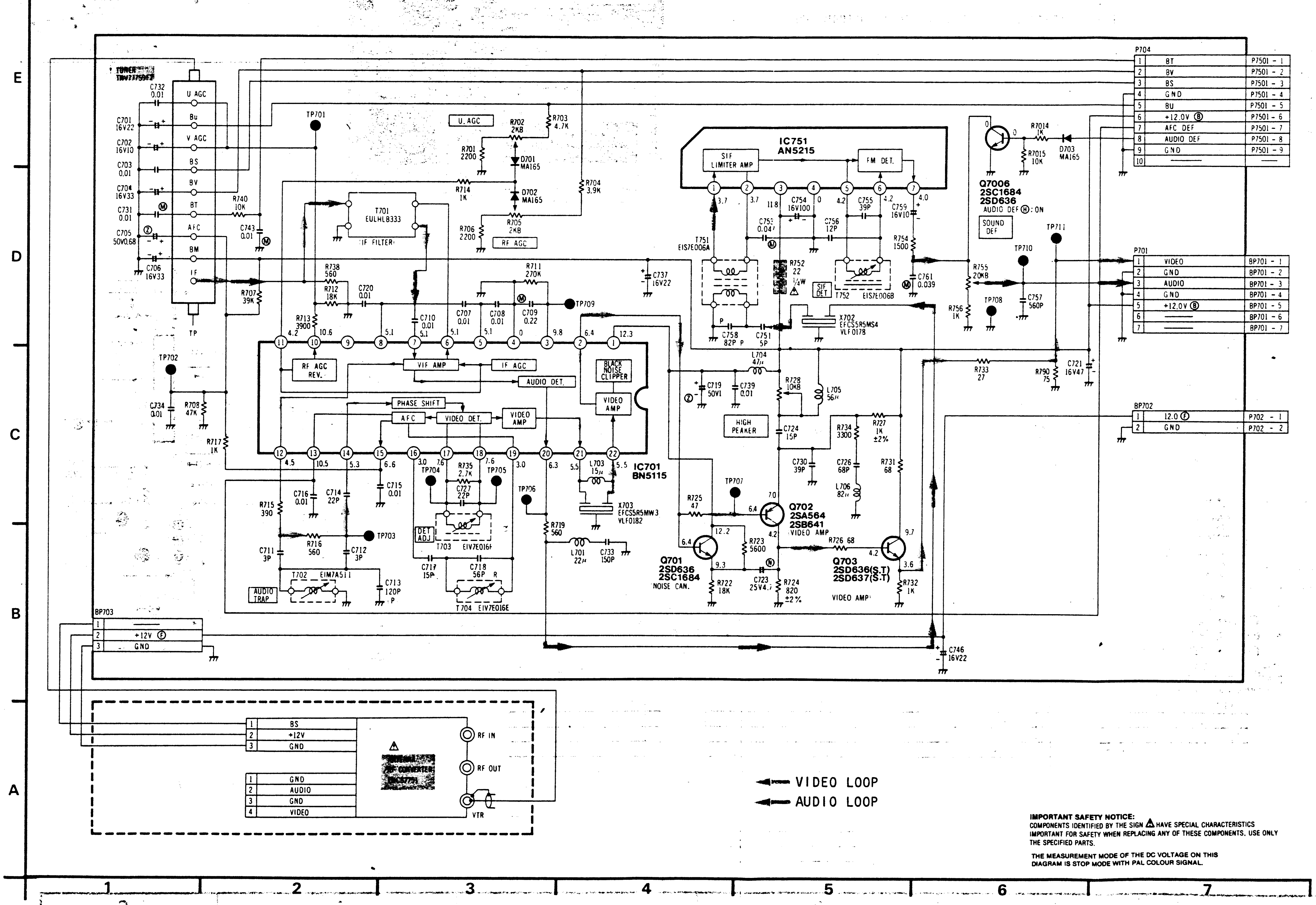
BP703	
1	
2	+12V Ⓕ
3	GND

P704	
1	BT
2	BV
3	BS
4	GND
5	BU
6	+12.0V Ⓑ
7	AFC.DEF
8	AUDIO DEF
9	GND
10	

P701	
1	VIDEO
2	GND
3	AUDIO
4	GND
5	+12.0V Ⓑ
6	
7	

TV DEMODULATOR SCHEMATIC DIAGRAM (NV-370-E/-EG)

TV Demodulator Schematic	
Q701	B-4
Q702	C-5
Q703	B-5
Q7006	E-6
IC701	C-3
IC702	E-5


E
D
C
B
A
1
2
3
4
5
6
7
TUNER
C732 0.01
U AGC
Bu
V AGC
BS
BV
BT
AFC
BM
IF
TP
C701 16V22
C702 16V10
C703 0.01
C704 16V33
C731 0.01
C705 50V0.68
C706 16V33
R740 10K
C743 0.01
R707 39K
TP701
TP702
C734 0.01
R708 47K
R717 1K
U. AGC
R702 2KB
R703 4.7K
R701 2200
D701 MA165
R714 1K
D702 MA165
R704 3.9K
R706 2200
R705 2KB
RF AGC
T701 EULHLB333
IF FILTER
R738 560
R712 18K
R713 3900
C720 0.01
C710 0.01
C707 0.01
C708 0.01
C709 0.22
R711 270K
TP709
4.2
10.6
5.1
5.1
5.1
5.1
0
9.8
6.4
12.3
RF AGC REV.
VIF AMP
IF AGC
AUDIO DET.
BLACK NOISE CLIPPER
VIDEO AMP
PHASE SHIFT
AFC
VIDEO DET.
VIDEO AMP
4.5
10.5
5.3
6.6
3.0
7.6
7.6
3.0
6.3
5.5
5.5
IC701 BN5115
TP704
TP705
R735 2.7K
C727 22P
C716 0.01
C714 22P
C715 0.01
R715 390
R716 560
TP703
C711 3P
C712 3P
C713 120P
DET ADJ
T703 EIV7E016F
C717 15P
C718 56P
T704 EIV7E016E
T702 EIM7A511
AUDIO TRAP
TP706
R719 560
L701 22μ
C733 150P
L703 15μ
X703 EFCS5R5MW3 VLF0182
C737 16V22
IC751 AN5215
SIF LIMITER AMP
FM DET.
3.7
3.7
11.8
0
4.2
4.2
4.0
C754 16V100
C755 39P
C759 16V10
C753 0.047
C756 12P
T751 EIS7E006A
R752 22 1/4W
SIF DET
T752 EIS7E006B
R754 1500
C761 0.039
C758 82P
C751 5P
X702 EFCS5R5MS4 VLF0178
L704 47μ
C719 50V1
C739 0.01
R728 10KB
L705 56μ
HIGH PEAKER
C724 15P
C730 39P
R734 3300
R727 1K ±2%
C726 68P
L706 82μ
R731 68
TP707
R725 47
6.4
7.0
12.2
4.2
9.7
Q702 2SA564 2SB641 VIDEO AMP
R723 5600
Q701 2SD636 2SC1684 NOISE CAN.
9.3
R722 18K
C723 25V4.7
R724 820 ±2%
R726 68
4.2
3.6
Q703 2SD636(S.T) 2SD637(S.T)
VIDEO AMP
R732 1K
C746 16V22
Q7006 2SC1684 2SD636
AUDIO DEF Ⓗ: ON
SOUND DEF
R7014 1K
R7015 10K
D703 MA165
TP711
TP710
TP708
R755 20KB
R756 1K
C757 560P
R733 27
R790 75
C721 16V47
P704
1 BT P7501 - 1
2 BV P7501 - 2
3 BS P7501 - 3
4 GND P7501 - 4
5 BU P7501 - 5
6 +12.0V Ⓑ P7501 - 6
7 AFC DEF P7501 - 7
8 AUDIO DEF P7501 - 8
9 GND P7501 - 9
10
P701
1 VIDEO BP701 - 1
2 GND BP701 - 2
3 AUDIO BP701 - 3
4 GND BP701 - 4
5 +12.0V Ⓑ BP701 - 5
6 BP701 - 6
7 BP701 - 7
BP702
1 12.0 Ⓕ P702 - 1
2 GND P702 - 2
BP703
1
2 +12V Ⓕ
3 GND
1 BS
2 +12V
3 GND
1 GND
2 AUDIO
3 GND
4 VIDEO
RF CONVERTER
RF IN
RF OUT
VTR
VIDEO LOOP
AUDIO LOOP

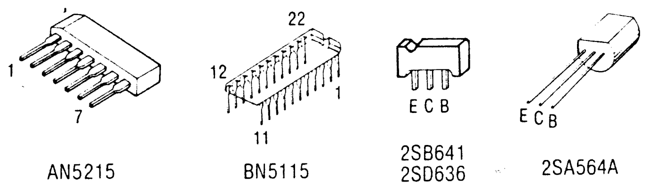
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SPECIFIED PARTS.

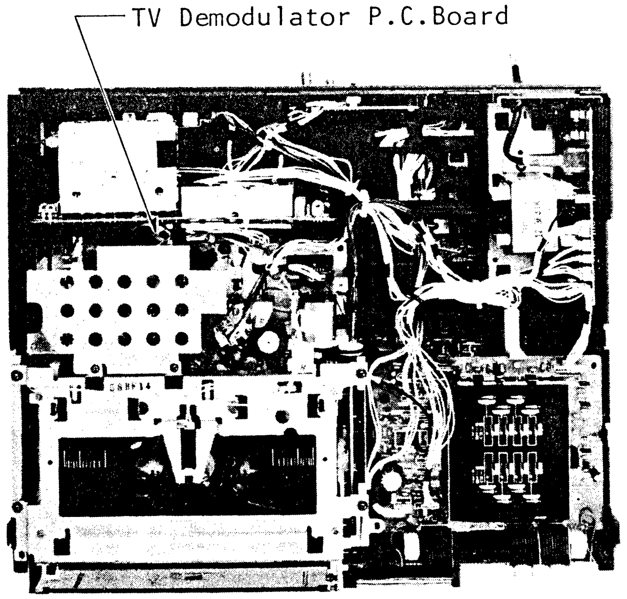
THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH PAL COLOUR SIGNAL.

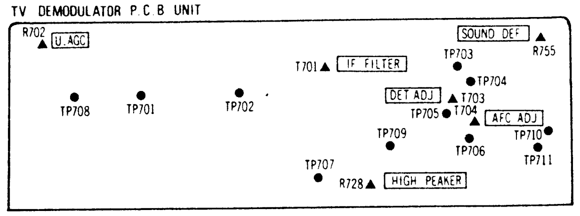
TV DEMODULATOR P.C.BOARD UNIT (VEP07186B: NV-370-B)

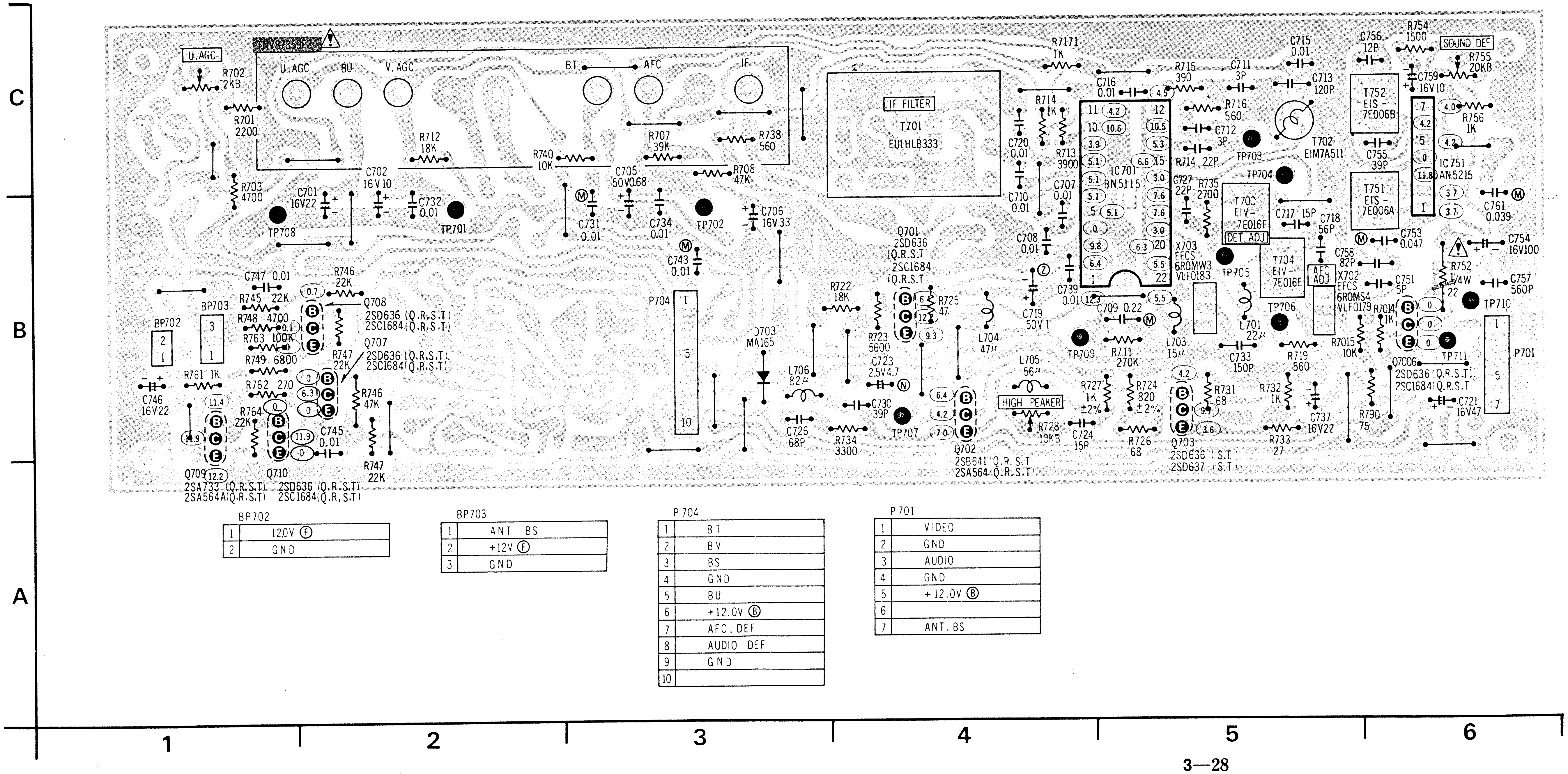
TV Demodulator C.B.A.	
Q701	B-4
Q702	B-4
Q703	B-5
Q707	B-2
Q708	B-2
Q709	B-1
Q710	B-1
Q7006	B-6
IC701	B-5
IC702	C-6

TV DEMODULATOR P.C. BOARD ICs & TRANSISTORs INFORMATION


1
7
AN5215
22
12
1
11
BN5115
E C B
2SB641
2SD636
E C B
2SA564A


TV Demodulator P.C.Board


TV DEMODULATOR P C B UNIT
R702 U.AGC
T701 IF FILTER
SOUND DEF
R755
TP703
TP704
DET ADJ
T703
TP705
T704
AFC ADJ
TP708
TP701
TP702
TP709
TP710
TP706
TP711
TP707
R728 HIGH PEAKER


C
B
A
1
2
3
4
5
6
TNV87359F2
U.AGC
R702 2KB
R701 2200
R703 4700
TP708
C701 16V22
C702 16V10
C732 0.01
TP701
U.AGC
BU
V.AGC
BT
AFC
IF
R712 18K
R740 10K
C731 0.01
C705 50V0.68
C734 0.01
TP702
C706 16V33
R707 39K
R738 560
R708 47K
C743 0.01
IF FILTER
T701
EULHLB333
P704
D703 MA165
L706 82µ
C726 68P
C730 39P
TP707
R734 3300
R722 18K
R723 5600
C723 2.5V4.7
Q701 2SD636 (Q.R.S.T) 2SC1684 (Q.R.S.T)
R725 47
L704 47µ
Q702 2SB641 (Q.R.S.T) 2SA564 (Q.R.S.T)
R7171 1K
R714 1K
C720 0.01
C710 0.01
C708 0.01
C719 50V1
C739 0.01
R713 3900
C707 0.01
TP709
L705 56µ
HIGH PEAKER
R728 10KB
R727 1K ±2%
C724 15P
C716 0.01
IC701 BN5115
C709 0.22
R711 270K
R724 820 ±2%
R726 68
Q703 2SD636 (S.T) 2SD637 (S.T)
R715 390
C711 3P
R716 560
C712 3P
R714 22P
TP703
C727 22P
R735 2700
T703 EIV-7E016F
DET ADJ
X703 EFCS 6R0MW3 VLF0183
TP705
L703 15µ
R731 68
L701 22µ
C733 150P
C715 0.01
C713 120P
T702 EIM7A511
TP704
C717 15P
C718 56P
T704 EIV-7E016E
AFC ADJ
TP706
R719 560
R732 1K
C737 16V22
R733 27
C756 12P
R754 1500
SOUND DEF
R755 20KB
C759 16V10
T752 EIS-7E006B
C755 39P
T751 EIS-7E006A
C753 0.047
C758 82P
X702 EFCS 6R0MS4 VLF0179
R7015 10K
R7014 1K
C751 5P
R790 75
R756 1K
IC751 AN5215
C761 0.039
C754 16V100
R752 1/4W 22
C757 560P
TP710
TP711
Q7006 2SD636 (Q.R.S.T) 2SC1684 (Q.R.S.T)
C721 16V47
P701
BP702
BP703
C746 16V22
R761 1K
C747 0.01
R745 22K
R748 4700
R763 100K
R749 6800
R746 22K
Q708 2SD636 (Q.R.S.T) 2SC1684 (Q.R.S.T)
Q707 2SD636 (Q.R.S.T) 2SC1684 (Q.R.S.T)
R747 22K
R746 47K
R762 270
R764 22K
C745 0.01
R747 22K
Q709 2SA733 (Q.R.S.T) 2SA564A (Q.R.S.T)
Q710 2SD636 (Q.R.S.T) 2SC1684 (Q.R.S.T)

BP702	
1	12.0V Ⓕ
2	GND

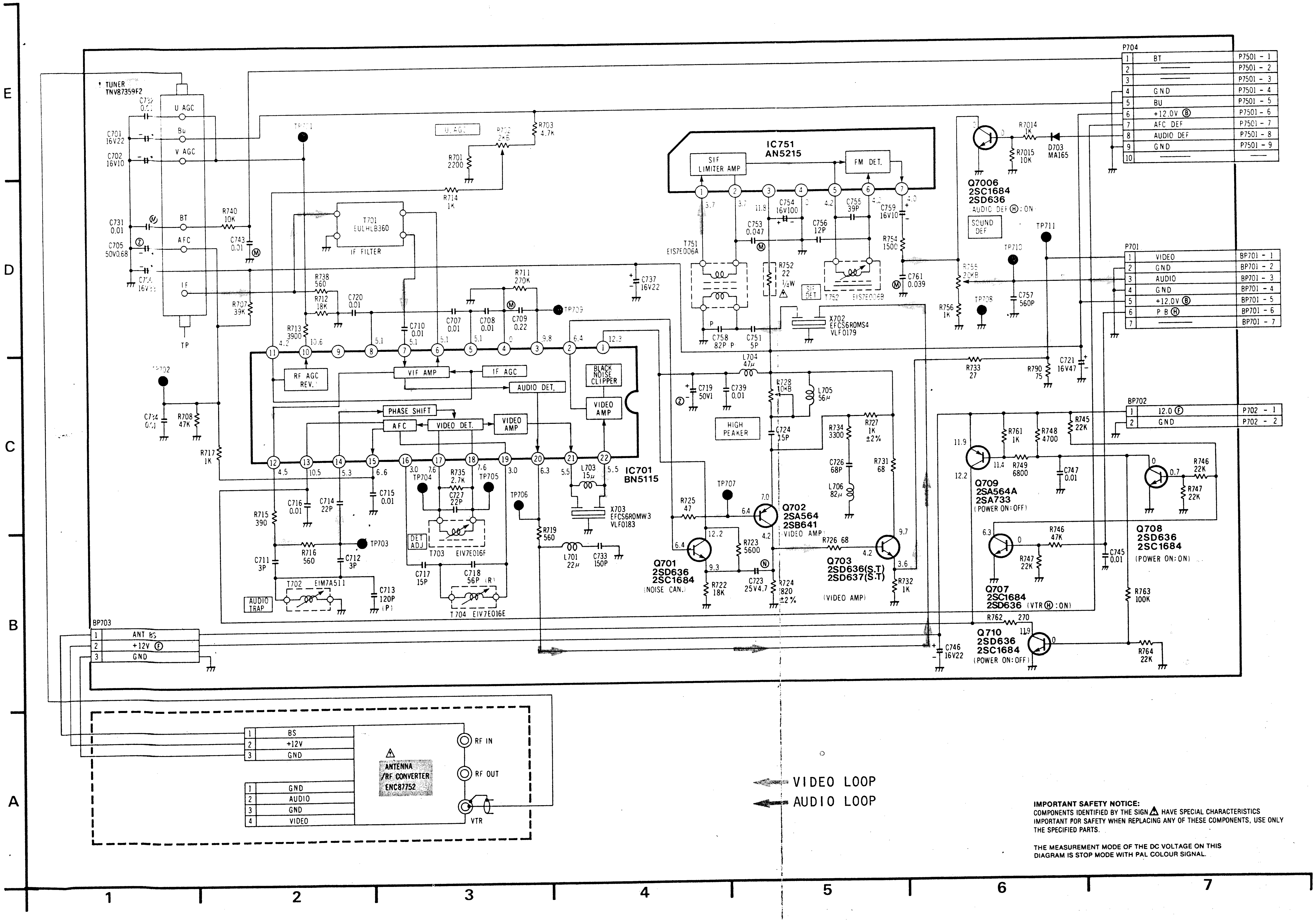
BP703	
1	ANT BS
2	+12V Ⓕ
3	GND

P 704	
1	BT
2	BV
3	BS
4	GND
5	BU
6	+12.0V Ⓑ
7	AFC. DEF
8	AUDIO DEF
9	GND
10	

P 701	
1	VIDEO
2	GND
3	AUDIO
4	GND
5	+12.0V Ⓑ
6	
7	ANT. BS

TV DEMODULATOR SCHEMATIC DIAGRAM (NV-370-B)

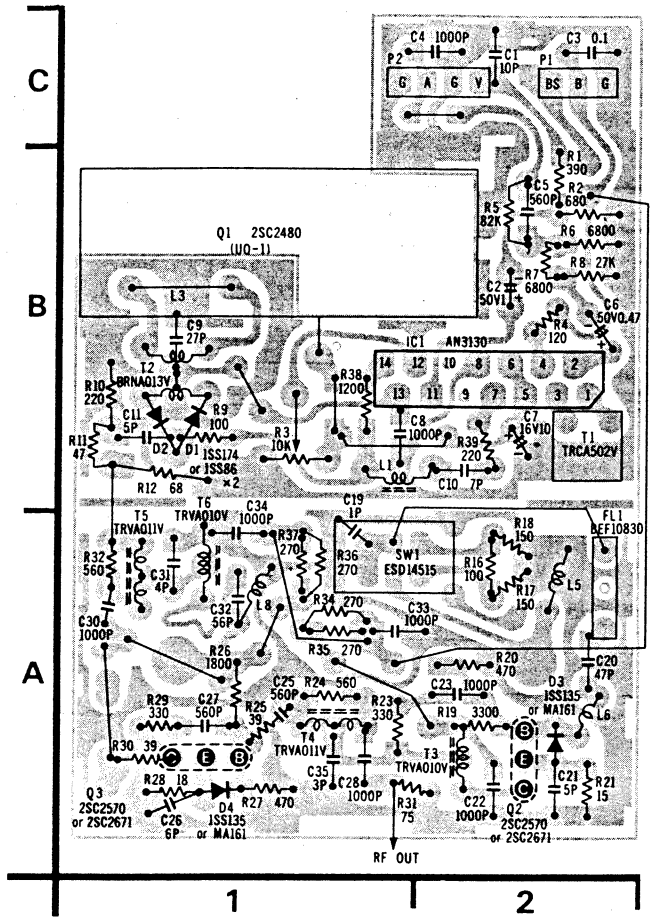
TV Demodulator Schematic	
Q701	B-4
Q702	C-5
Q703	B-6
Q707	B-6
Q708	B-7
Q709	C-6
Q710	B-6
Q7006	E-6
IC701	C-3
IC702	E-5


E
D
C
B
A
1
2
3
4
5
6
7
TUNER
TNV87359F2
U AGC
Bu
V AGC
BT
AFC
IF
TP
C701 16V22
C702 16V10
C731 0.01
C705 50V0.68
R740 10K
C743 0.01
R707 39K
R708 47K
R717 1K
TP701
TP702
R701 2200
R703 4.7K
R714 1K
T701 EULHLB360
IF FILTER
R738 560
R712 18K
C720 0.01
R713 3900
R711 270K
C737 16V22
TP709
C710 0.01
C707 0.01
C708 0.01
C709 0.22
RF AGC REV.
VIF AMP
IF AGC
AUDIO DET.
BLACK NOISE CLIPPER
VIDEO AMP
PHASE SHIFT
AFC
VIDEO DET.
IC701
BN5115
R715 390
C716 0.01
C714 22P
C715 0.01
R716 560
C712 3P
C711 3P
TP703
T702 EIM7A511
AUDIO TRAP
C713 120P
TP704
TP705
R735 2.7K
C727 22P
DET ADJ
T703 EIV7E016F
C717 15P
C718 56P
T704 EIV7E016E
TP706
R719 560
L701 22µ
C733 150P
L703 15µ
X703 EFCS6R0MW3 VLF0183
IC751
AN5215
SIF LIMITER AMP
FM DET.
C754 16V100
C753 0.047
C755 39P
C756 12P
C759 16V10
R754 1500
T751 EIS7E006A
R752 22 1/4W
SIF DET
T752 EIS7E006B
R761 0.039
X702 EFCS6R0MS4 VLF0179
C758 82P
C751 5P
L704 47µ
C719 50V1
C739 0.01
R728 10KB
L705 56µ
HIGH PEAKER
C724 15P
R734 3300
R727 1K ±2%
C726 68P
R731 68
L706 82µ
TP707
R725 47
Q702
2SA564
2SB641
VIDEO AMP
Q701
2SD636
2SC1684
NOISE CAN.
R723 5600
R722 18K
C723 25V4.7
R724 820 ±2%
R726 68
Q703
2SD636(S.T)
2SD637(S.T)
VIDEO AMP
R732 1K
P704
BT
GND
BU
+12.0V Ⓑ
AFC DEF
AUDIO DEF
P7501 - 1
P7501 - 2
P7501 - 3
P7501 - 4
P7501 - 5
P7501 - 6
P7501 - 7
P7501 - 8
P7501 - 9
R7014 1K
R7015 10K
D703 MA165
Q7006
2SC1684
2SD636
AUDIO DEF Ⓗ : ON
SOUND DEF
TP711
TP710
TP708
R755 20KB
R756 1K
C757 560P
P701
VIDEO
GND
AUDIO
GND
+12.0V Ⓑ
P B Ⓗ
BP701 - 1
BP701 - 2
BP701 - 3
BP701 - 4
BP701 - 5
BP701 - 6
BP701 - 7
R733 27
R790 75
C721 16V47
BP702
12.0 Ⓕ
GND
P702 - 1
P702 - 2
R761 1K
R748 4700
R745 22K
R749 6800
C747 0.01
Q709
2SA564A
2SA733
(POWER ON:OFF)
R746 22K
R747 22K
Q708
2SD636
2SC1684
(POWER ON:ON)
R746 47K
R747 22K
C745 0.01
Q707
2SC1684
2SD636 (VTR Ⓗ : ON)
R763 100K
R762 270
Q710
2SD636
2SC1684
(POWER ON:OFF)
R764 22K
C746 16V22
BP703
ANT BS
+12V Ⓕ
GND
BS
+12V
GND
AUDIO
VIDEO
ANTENNA /RF CONVERTER ENC87752
RF IN
RF OUT
VTR
VIDEO LOOP
AUDIO LOOP

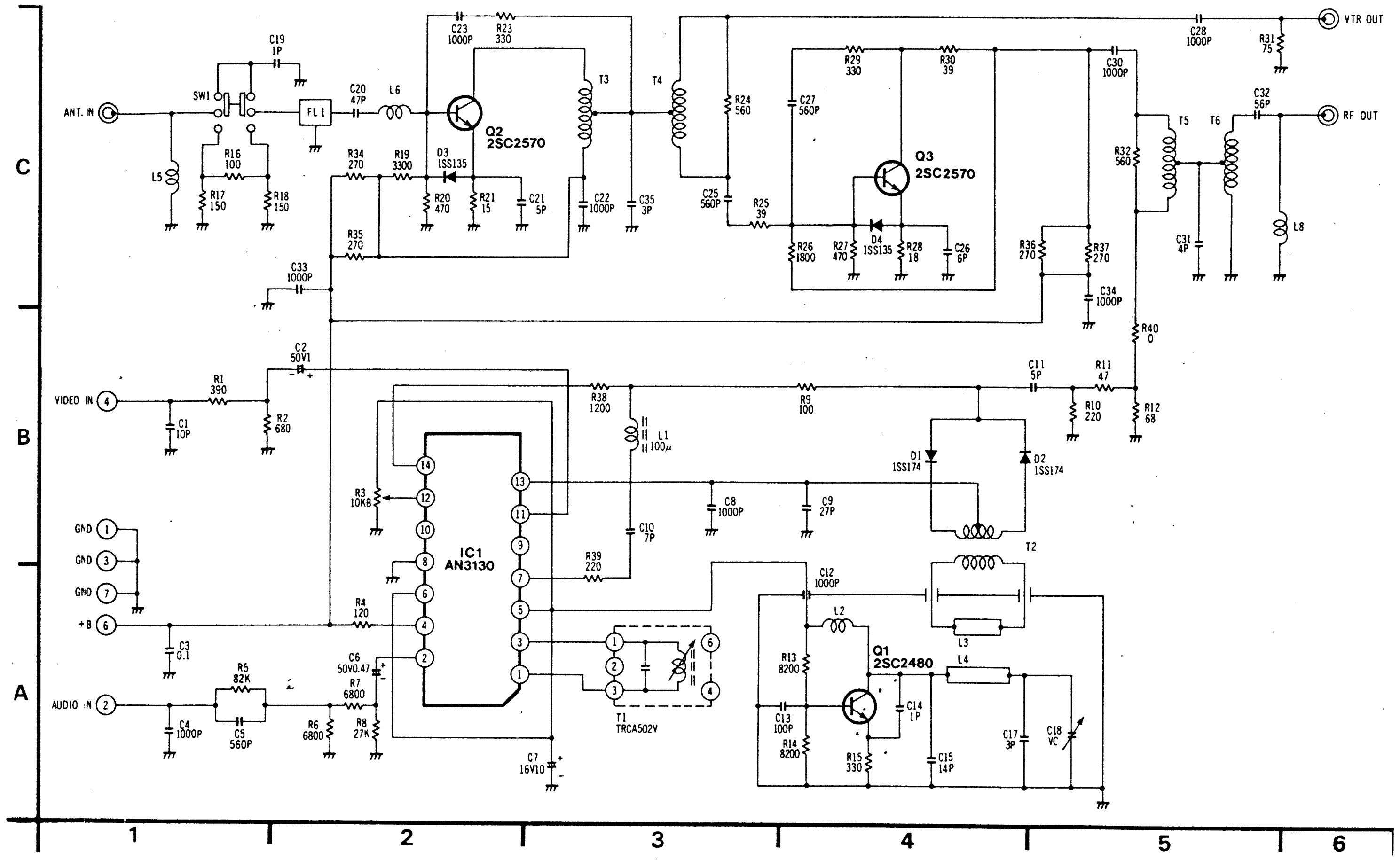
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH PAL COLOUR SIGNAL.

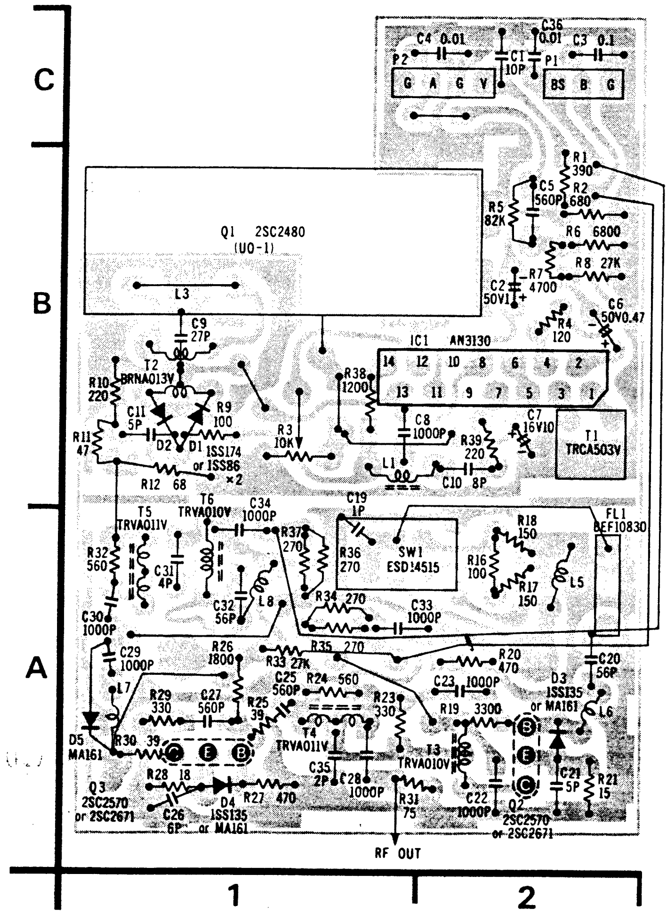
RF CONVERTER UNIT (ENC87751: NV-370-E/-EG)


C
B
A
1
2
Q1 2SC2480 (UQ-1)
IC1 AN3130
T1 TRCA502V
T2 BRNA013V
T5 TRVA011V
T6 TRVA010V
T3 TRVA010V
T4 TRVA011V
SW1 ESD14515
FL1 BEF10830
D1 D2 1SS174 or 1SS86 ×2
D3 1SS135 or MA161
D4 1SS135 or MA161
Q2 2SC2570 or 2SC2671
Q3 2SC2570 or 2SC2671
P1 BS B G
P2 G A G V
RF OUT

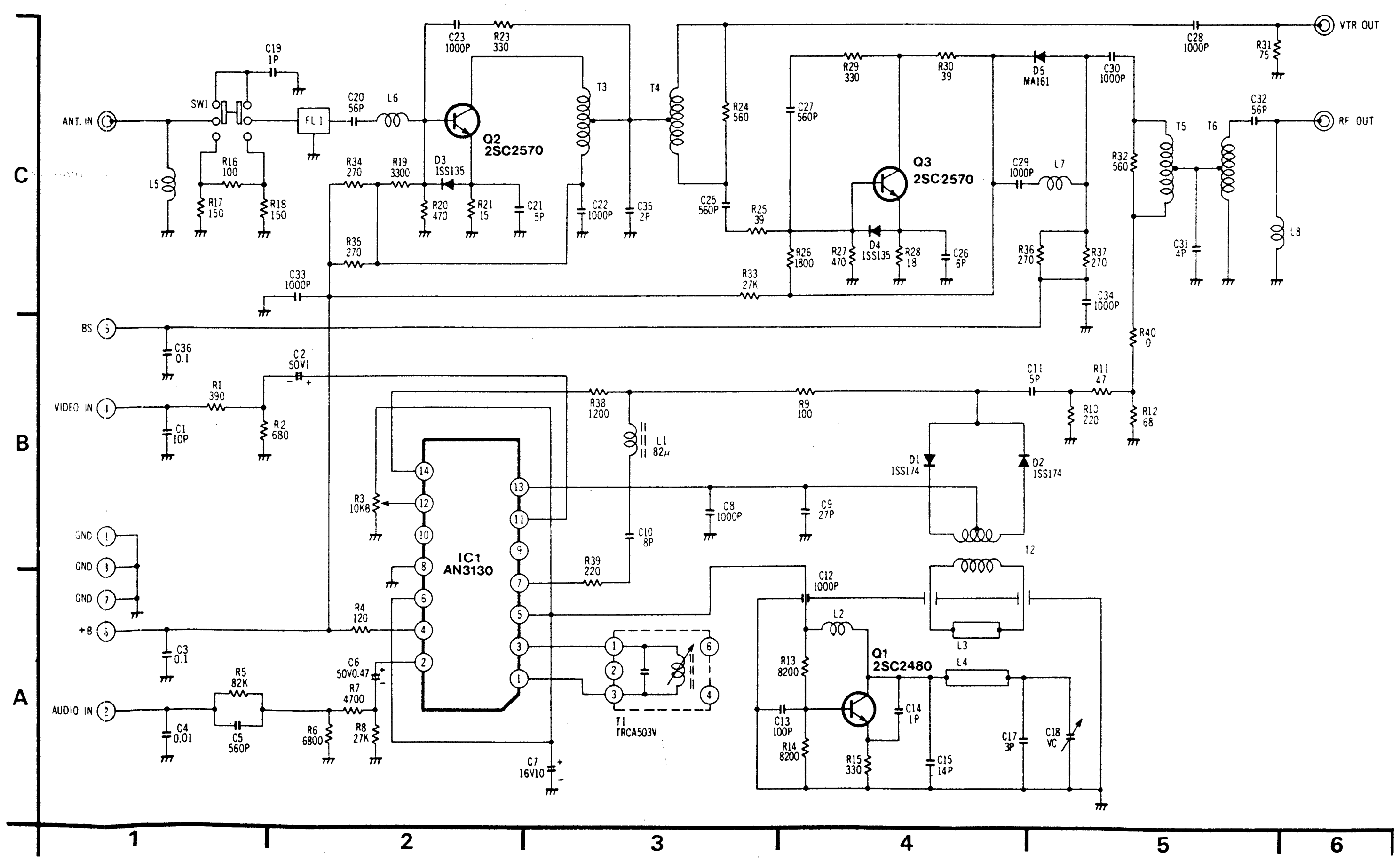
RF CONVERTER SCHEMATIC DIAGRAM (NV-370-E/-EG)


ANT. IN
VTR OUT
RF OUT
VIDEO IN ④
GND ①
GND ③
GND ⑦
+B ⑥
AUDIO IN ②
Q2 2SC2570
Q3 2SC2570
Q1 2SC2480
IC1 AN3130
T1 TRCA502V
SW1
FL1
C
B
A
1
2
3
4
5
6

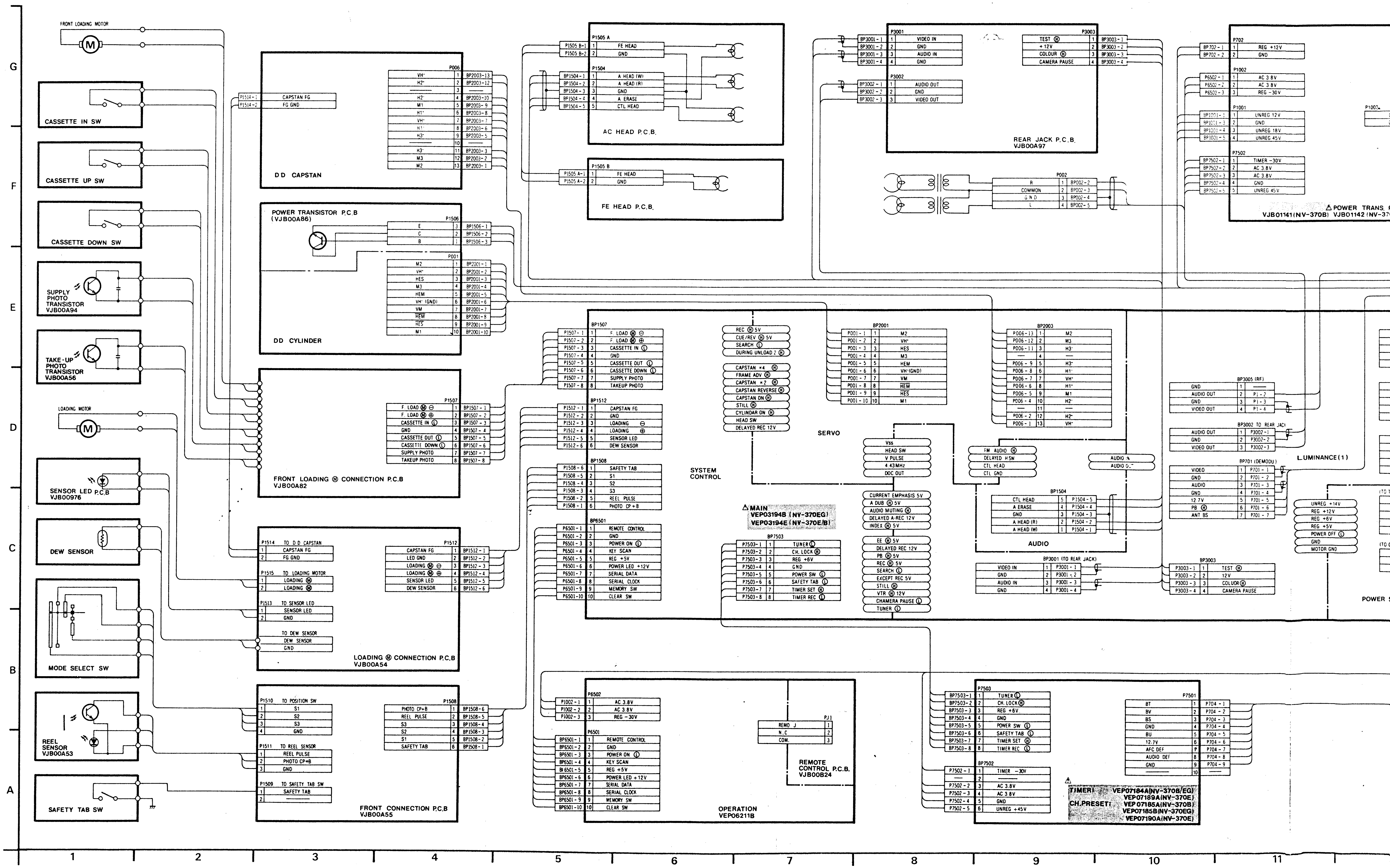
RF CONVERTER UNIT (ENC87752: NV-370-B)

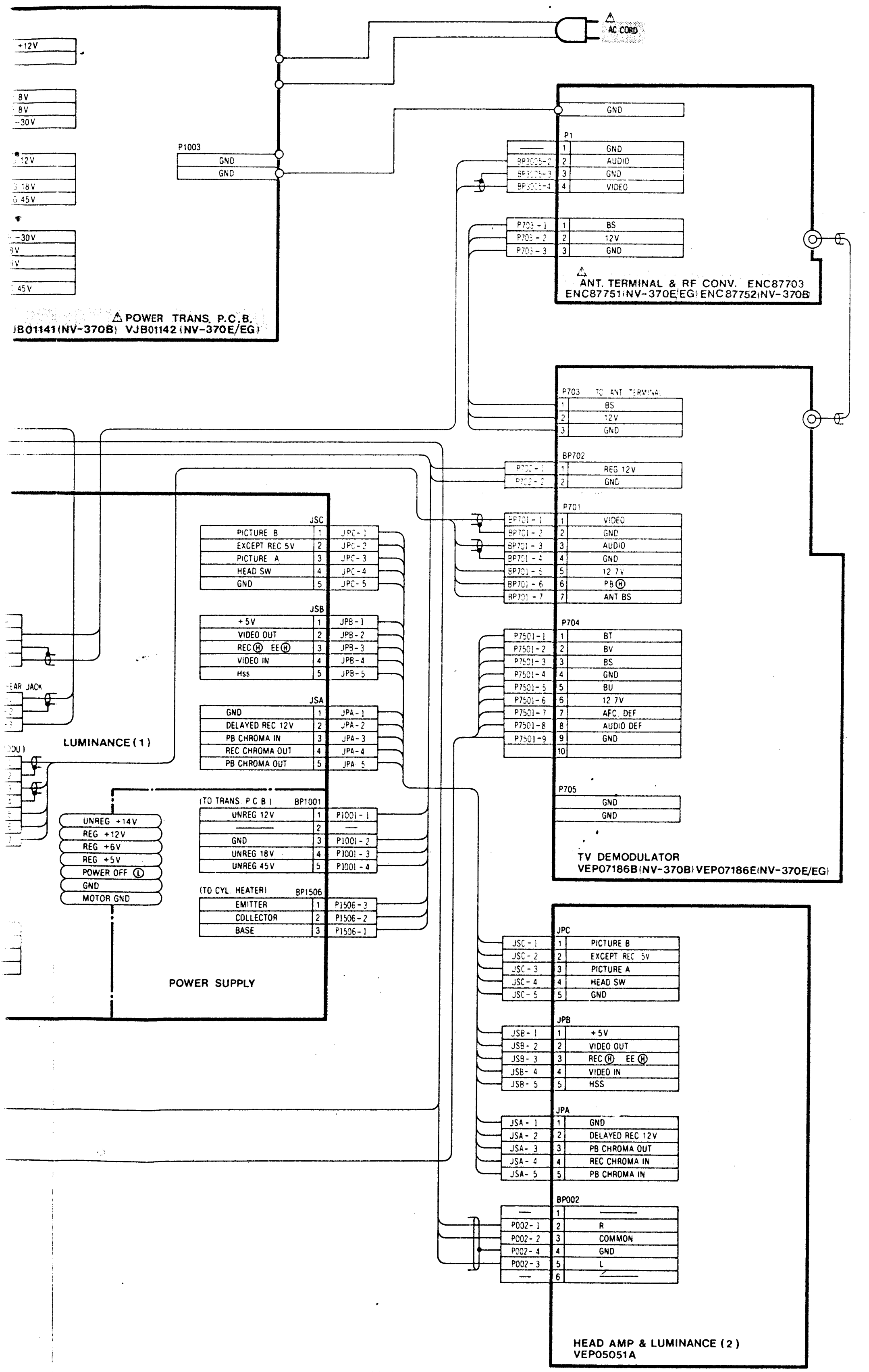

C
B
A
1
2
Q1 2SC2480 (UQ-1)
IC1 AN3130
T1 TRCA503V
T2 BRNA013V
T5 TRVA011V
T6 TRVA010V
T3 TRVA010V
T4 TRVA011V
SW1 ESD14515
FL1 BEF10830
D1 D2 1SS174 or 1SS86 ×2
D3 1SS135 or MA161
D4 1SS135 or MA161
D5 MA161
Q2 2SC2570 or 2SC2671
Q3 2SC2570 or 2SC2671
P1 BS B G
P2 G A G V
RF OUT

RF CONVERTER SCHEMATIC DIAGRAM (NV-370-B)


ANT. IN
VTR OUT
RF OUT
BS ⑤
VIDEO IN ④
GND ①
GND ③
GND ⑦
+B ⑥
AUDIO IN ②
Q2 2SC2570
Q3 2SC2570
Q1 2SC2480
IC1 AN3130
T1 TRCA503V
D5 MA161
C
B
A
1
2
3
4
5
6

INTERCONNECTION SCHEMATIC DIAGRAM


FRONT LOADING MOTOR
CASSETTE IN SW
CASSETTE UP SW
CASSETTE DOWN SW
SUPPLY PHOTO TRANSISTOR VJB00A94
TAKE-UP PHOTO TRANSISTOR VJB00A56
LOADING MOTOR
SENSOR LED P.C.B VJB00976
DEW SENSOR
MODE SELECT SW
REEL SENSOR VJB00A53
SAFETY TAB SW
DD CAPSTAN
P006
POWER TRANSISTOR P.C.B (VJB00A86)
P1506
P001
DD CYLINDER
P1507
FRONT LOADING Ⓜ CONNECTION P.C.B VJB00A82
P1514 TO D.D CAPSTAN
P1515 TO LOADING MOTOR
P1513 TO SENSOR LED
TO DEW SENSOR
P1512
LOADING Ⓜ CONNECTION P.C.B VJB00A54
P1510 TO POSITION SW
P1511 TO REEL SENSOR
P1509 TO SAFETY TAB SW
P1508
FRONT CONNECTION P.C.B VJB00A55
P1505 A
P1504
AC HEAD P.C.B.
P1505 B
FE HEAD P.C.B.
P3001
P3002
P3003
REAR JACK P.C.B. VJB00A97
P002
P702
P1002
P1001
P7502
⚠POWER TRANS
VJB01141(NV-370B) VJB01142(NV-37
BP1507
BP1512
BP1508
BP6501
SYSTEM CONTROL
SERVO
BP2001
BP2003
BP1504
AUDIO
BP3001 (TO REAR JACK)
BP3003
BP3005 (RF)
BP3002 TO REAR JACK
BP701 (DEMODU)
LUMINANCE (1)
⚠MAIN VEP03194B (NV-370EG) VEP03194E (NV-370E/B)
BP7503
P6502
P6501
OPERATION VEP06211B
PJ1
REMOTE CONTROL P.C.B. VJB00B24
P7503
BP7502
P7501
⚠ TIMER: VEP07184A(NV-370B/EG) VEP07189A(NV-370E) CH.PRESET: VEP07185A(NV-370B) VEP07185B(NV-370EG) VEP07190A(NV-370E)
POWER S
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11


AC CORD
+12V
8V
8V
-30V
12V
18V
45V
-30V
45V
P1003
GND
GND
POWER TRANS. P.C.B.
JB01141(NV-370B) VJB01142(NV-370E/EG)
GND
P1
1 GND
2 AUDIO
3 GND
4 VIDEO
BP3005-2
BP3005-3
BP3005-4
P703-1 1 BS
P703-2 2 12V
P703-3 3 GND
ANT. TERMINAL & RF CONV. ENC87703
ENC87751(NV-370E/EG) ENC87752(NV-370B)
P703 TO ANT. TERMINAL
1 BS
2 12V
3 GND
BP702
P702-1 1 REG 12V
P702-2 2 GND
P701
BP701-1 1 VIDEO
BP701-2 2 GND
BP701-3 3 AUDIO
BP701-4 4 GND
BP701-5 5 12.7V
BP701-6 6 PB Ⓗ
BP701-7 7 ANT BS
P704
P7501-1 1 BT
P7501-2 2 BV
P7501-3 3 BS
P7501-4 4 GND
P7501-5 5 BU
P7501-6 6 12.7V
P7501-7 7 AFC DEF
P7501-8 8 AUDIO DEF
P7501-9 9 GND
10
P705
GND
GND
TV DEMODULATOR
VEP07186B(NV-370B) VEP07186E(NV-370E/EG)
JSC
PICTURE B 1 JPC-1
EXCEPT REC 5V 2 JPC-2
PICTURE A 3 JPC-3
HEAD SW 4 JPC-4
GND 5 JPC-5
JSB
+5V 1 JPB-1
VIDEO OUT 2 JPB-2
REC Ⓗ EE Ⓗ 3 JPB-3
VIDEO IN 4 JPB-4
Hss 5 JPB-5
JSA
GND 1 JPA-1
DELAYED REC 12V 2 JPA-2
PB CHROMA IN 3 JPA-3
REC CHROMA OUT 4 JPA-4
PB CHROMA OUT 5 JPA-5
EAR JACK
LUMINANCE (1)
(TO TRANS P.C.B.) BP1001
UNREG 12V 1 P1001-1
2
GND 3 P1001-2
UNREG 18V 4 P1001-3
UNREG 45V 5 P1001-4
(TO CYL. HEATER) BP1506
EMITTER 1 P1506-3
COLLECTOR 2 P1506-2
BASE 3 P1506-1
UNREG +14V
REG +12V
REG +6V
REG +5V
POWER OFF Ⓛ
GND
MOTOR GND
POWER SUPPLY
JPC
JSC-1 1 PICTURE B
JSC-2 2 EXCEPT REC 5V
JSC-3 3 PICTURE A
JSC-4 4 HEAD SW
JSC-5 5 GND
JPB
JSB-1 1 +5V
JSB-2 2 VIDEO OUT
JSB-3 3 REC Ⓗ EE Ⓗ
JSB-4 4 VIDEO IN
JSB-5 5 HSS
JPA
JSA-1 1 GND
JSA-2 2 DELAYED REC 12V
JSA-3 3 PB CHROMA OUT
JSA-4 4 REC CHROMA IN
JSA-5 5 PB CHROMA IN
BP002
1
P002-1 2 R
P002-2 3 COMMON
P002-4 4 GND
P002-3 5 L
6
HEAD AMP & LUMINANCE (2)
VEP05051A

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN △ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SPECIFIED PARTS.

11 12 13 14 15

ORDER NO. VRD-8308-478

Service Manual

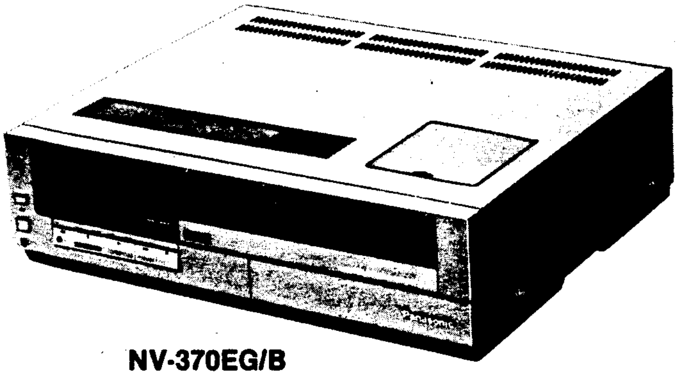
Video Cassette Recorder

Panasonic VHS

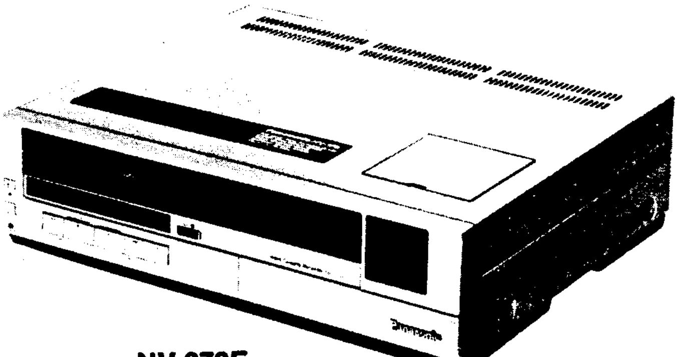
NV-370-E -EG -B

Vol. 4

Exploded Views
Replacement Parts List



NV-370EG/B



NV-370E

SPECIFICATIONS

Power Source: 220V AC 50/60Hz (NV-370E/EG)
240V AC 50/60Hz (NV-370B)
Power Consumption: Approx. 28 watts
Television System: CCIR: 625 lines, 50 fields
PAL colour signal (NV-370E/B)
CCIR: 625 lines, 50 fields PAL
/DDR SECAM colour signal
(NV-370EG)
Video Recording
System: 2 rotary heads, helical scanning system
Luminance: FM azimuth recording
Colour signal: converted subscarrier
phase shift recording
Audio Track: 1 track
Tape Format: Tape width 12.7mm high density tape
Tape Speed: 23.39mm/s
Record/Playback Time: 240min. with NV-E240
FF/REW Time: Less than 5.5min. with NV-E180
Heads: Video: 2 rotary heads
Audio/Control: 1 stationary head
Erase: 1 full track erase
Input Level: Video: VIDEO IN connector (BNC)
1.0Vp-p, 75Ω terminated
Audio: LINE IN jack (Phono jack)
More than −20dB, 50kΩ

TV Tuners: (NV-370E)
VHF CH2~CH12
UHF CH21~CH69
(NV-370EG)
VHF CH2~CH12
UHF CH21~CH69
(NV-370B)
UHF CH21~CH69
Output Level: Video: VIDEO OUT connector (BNC)
1.0Vp-p, 75Ω terminated
Audio: LINE OUT jack (Phono jack)
−6dB, less than 1kΩ
RF Modulated: UHF 36±4CH
73±3dB 75Ω terminated
Weight: 8.2kg
Dimensions: 430(W)×115(H)×372(D)mm
Accessory Supplied: 1 pc. DIN-RF Cable VJA0130
1 pc. Video Cassette Tape (NV-370E/B)
1 pc. Wired Remote Controller,
VSQ0329 (NV-370E [Black]/EG/B)
VSQ0330 (NV-370E [Silver])
Optional Accessories: Video cassette tape:
NV-E240 Approx. 344m, 240min.
NV-E180 Approx. 258m, 180min.
NV-E120 Approx. 174m, 120min.
NV-E60 Approx. 88m, 60min.

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

CONTENTS

SPECIFICATIONS .... Cover

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4. Cassette Up Mechanism Section 4- 6
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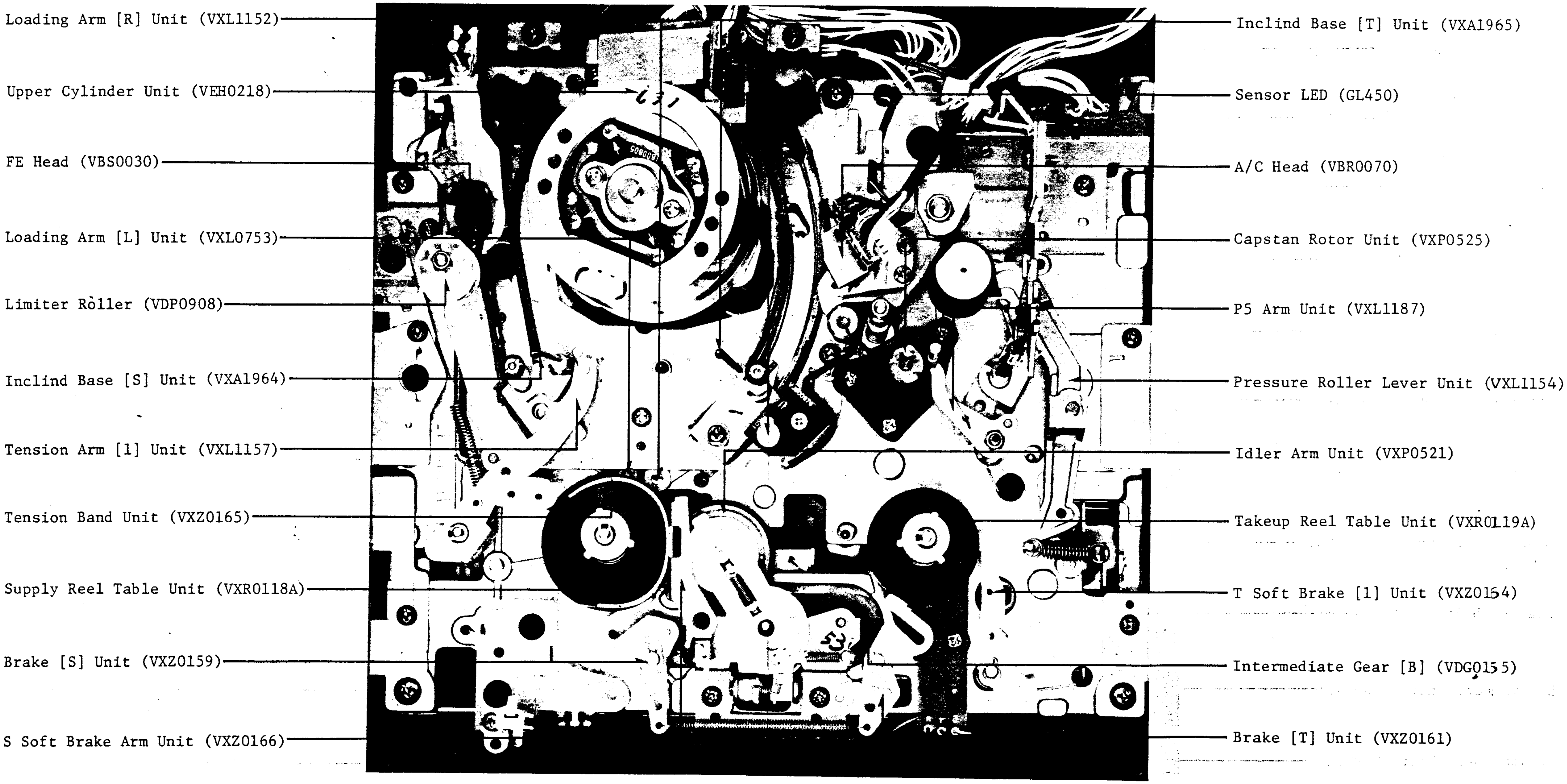
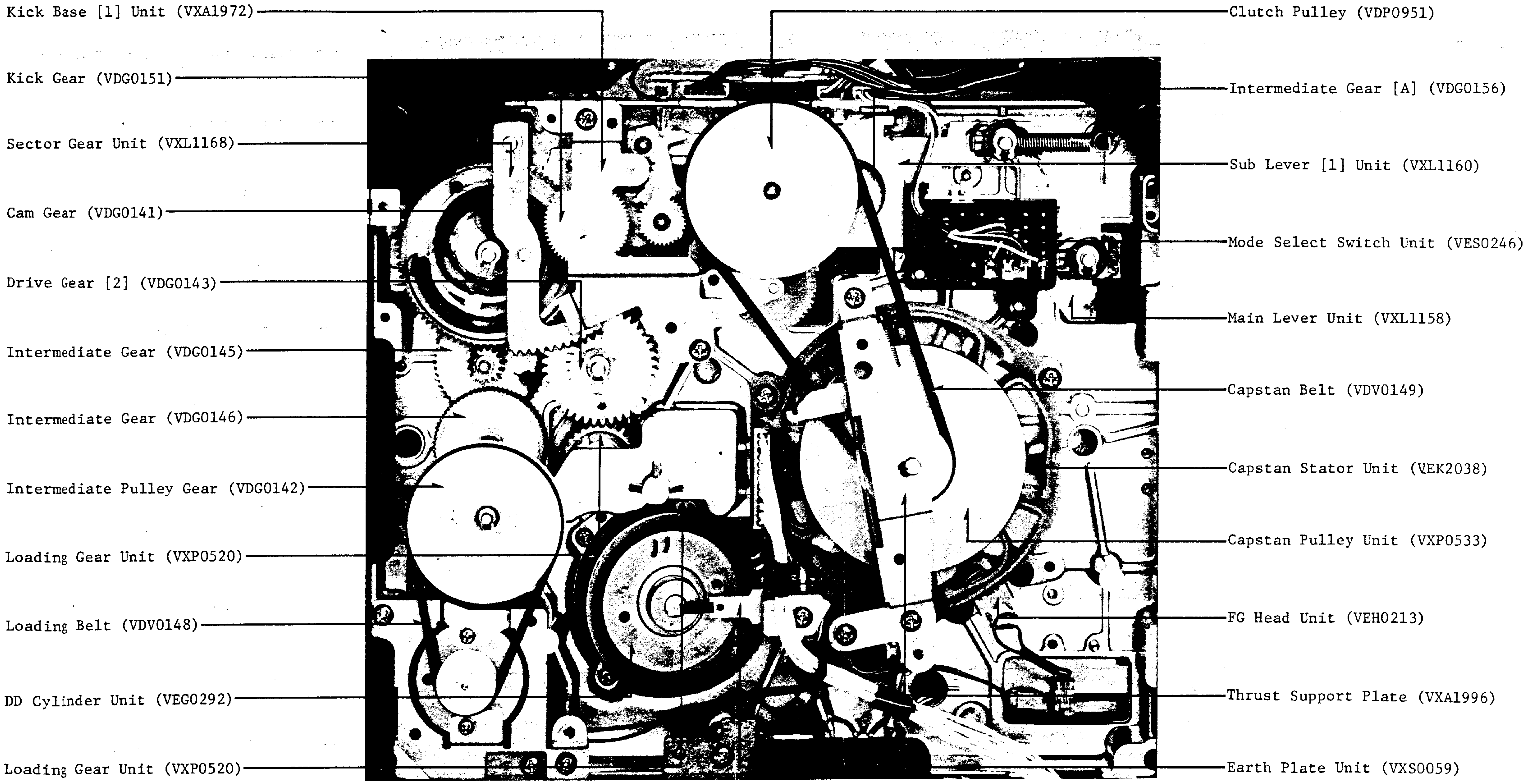
INNER PARTS LOCATION

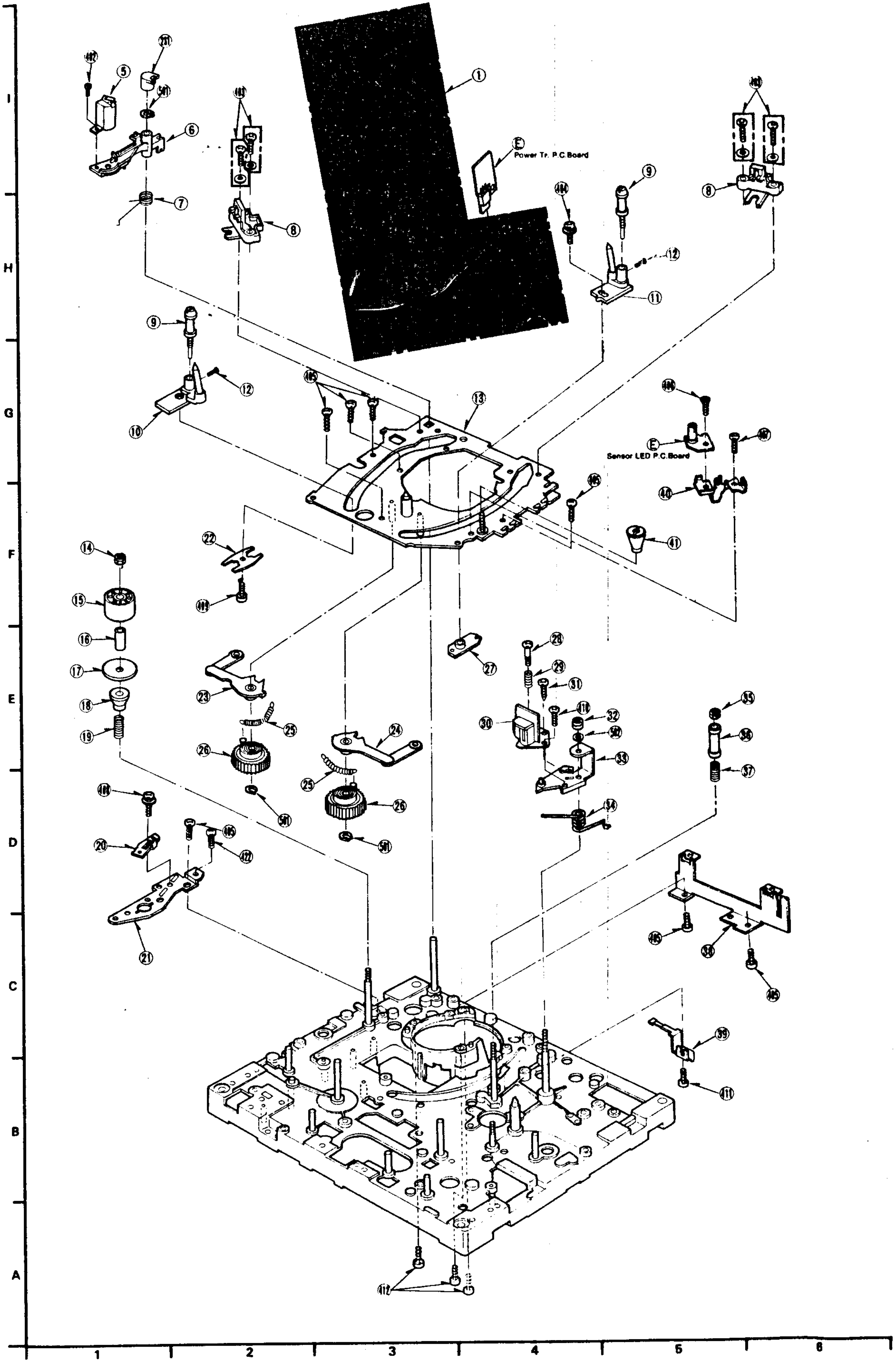
TOP VIEW


Loading Arm [R] Unit (VXL1152)
Upper Cylinder Unit (VEH0218)
FE Head (VBS0030)
Loading Arm [L] Unit (VXL0753)
Limiter Roller (VDP0908)
Inclind Base [S] Unit (VXA1964)
Tension Arm [1] Unit (VXL1157)
Tension Band Unit (VXZ0165)
Supply Reel Table Unit (VXR0118A)
Brake [S] Unit (VXZ0159)
S Soft Brake Arm Unit (VXZ0166)
Inclind Base [T] Unit (VXA1965)
Sensor LED (GL450)
A/C Head (VBR0070)
Capstan Rotor Unit (VXP0525)
P5 Arm Unit (VXL1187)
Pressure Roller Lever Unit (VXL1154)
Idler Arm Unit (VXP0521)
Takeup Reel Table Unit (VXR0119A)
T Soft Brake [1] Unit (VXZ0154)
Intermediate Gear [B] (VDG0155)
Brake [T] Unit (VXZ0161)

BOTTOM VIEW


Kick Base [1] Unit (VXA1972)
Kick Gear (VDG0151)
Sector Gear Unit (VXL1168)
Cam Gear (VDG0141)
Drive Gear [2] (VDG0143)
Intermediate Gear (VDG0145)
Intermediate Gear (VDG0146)
Intermediate Pulley Gear (VDG0142)
Loading Gear Unit (VXP0520)
Loading Belt (VDV0148)
DD Cylinder Unit (VEG0292)
Loading Gear Unit (VXP0520)
Clutch Pulley (VDP0951)
Intermediate Gear [A] (VDG0156)
Sub Lever [1] Unit (VXL1160)
Mode Select Switch Unit (VES0246)
Main Lever Unit (VXL1158)
Capstan Belt (VDV0149)
Capstan Stator Unit (VEK2038)
Capstan Pulley Unit (VXP0533)
FG Head Unit (VEH0213)
Thrust Support Plate (VXA1996)
Earth Plate Unit (VXS0059)

EXPLODED VIEW ❶ *Transport Section*


402
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Power Tr. P.C.Board
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Sensor LED P.C.Board
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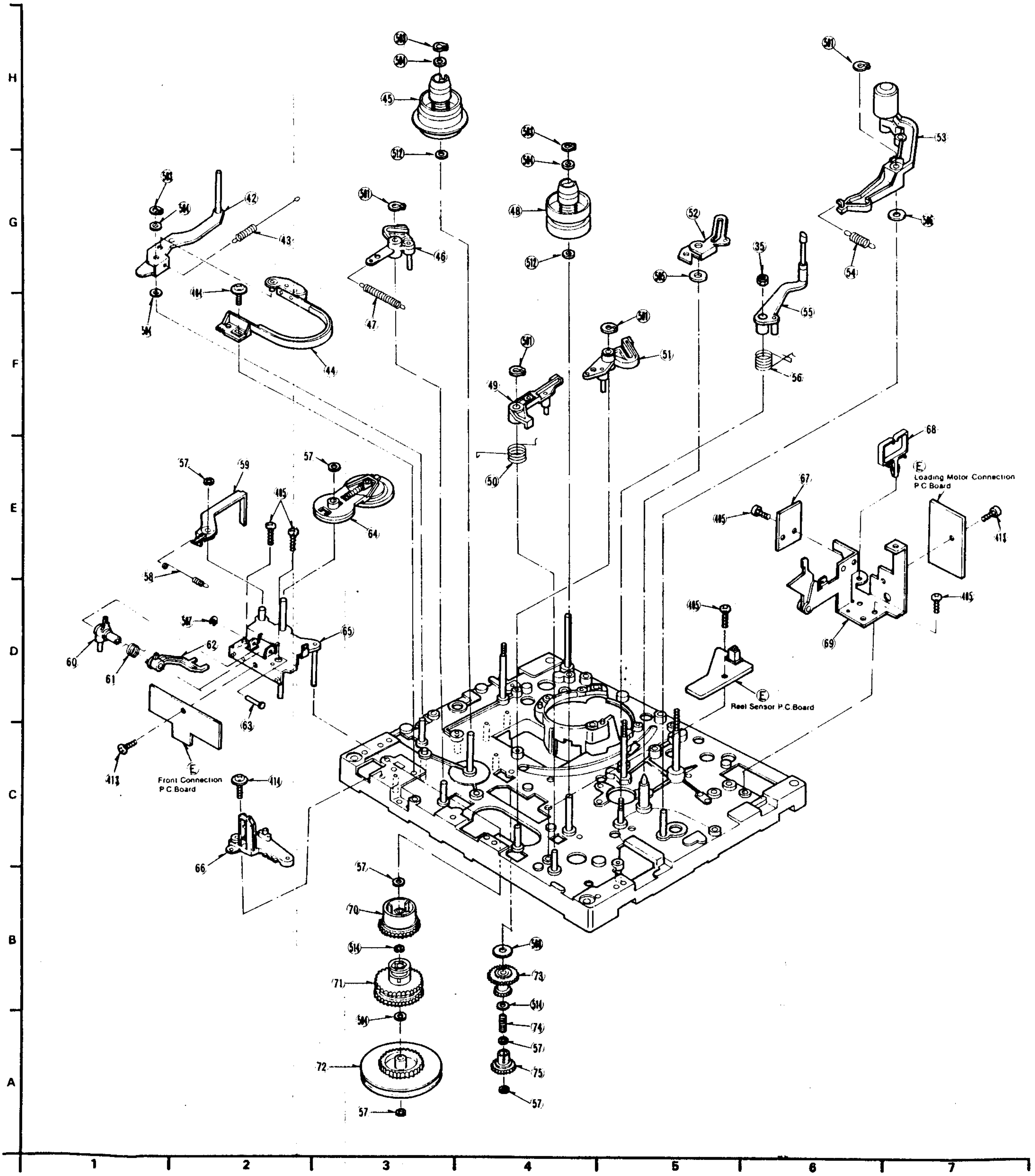
❷ *Moving Mechanism Section*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Loading Motor Connection P.C.Board
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Reel Sensor P.C.Board
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413
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Front Connection P.C.Board
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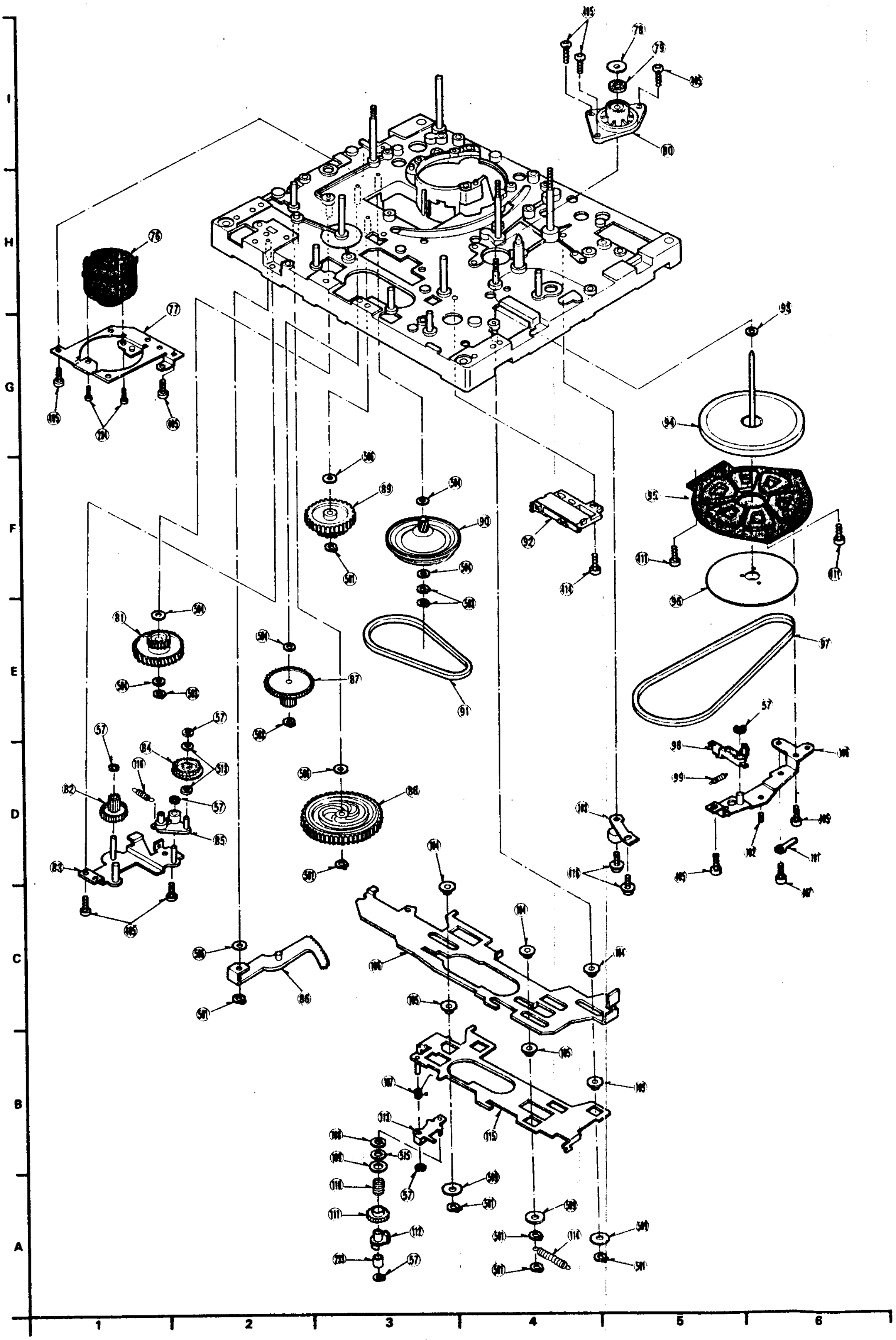
❸ Chassis Parts Section



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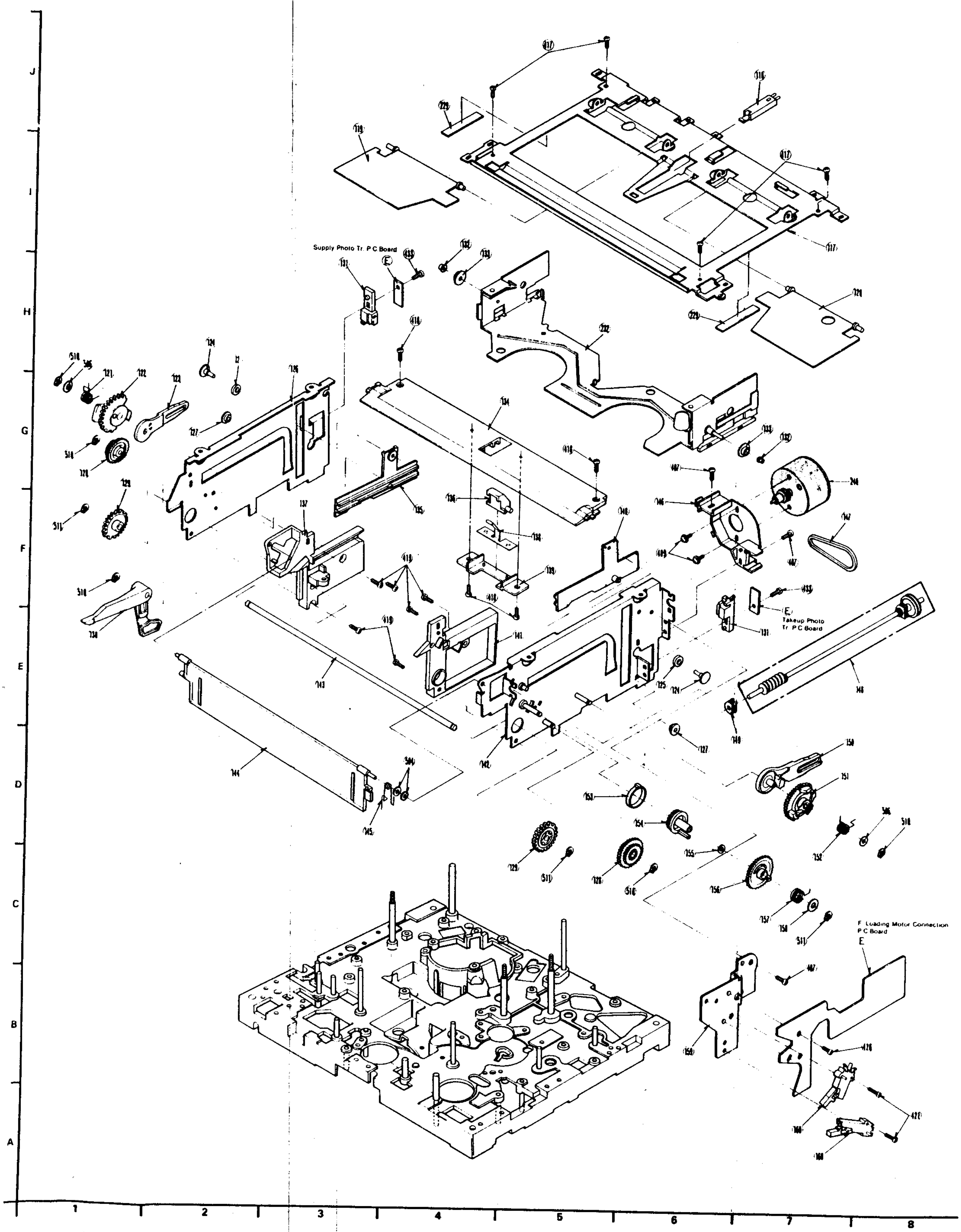
❹ *Cassette Up Mechanism Section*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Supply Photo Tr. P.C.Board
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133
232
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Takeup Photo Tr. P.C.Board
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F Loading Motor Connection P.C Board
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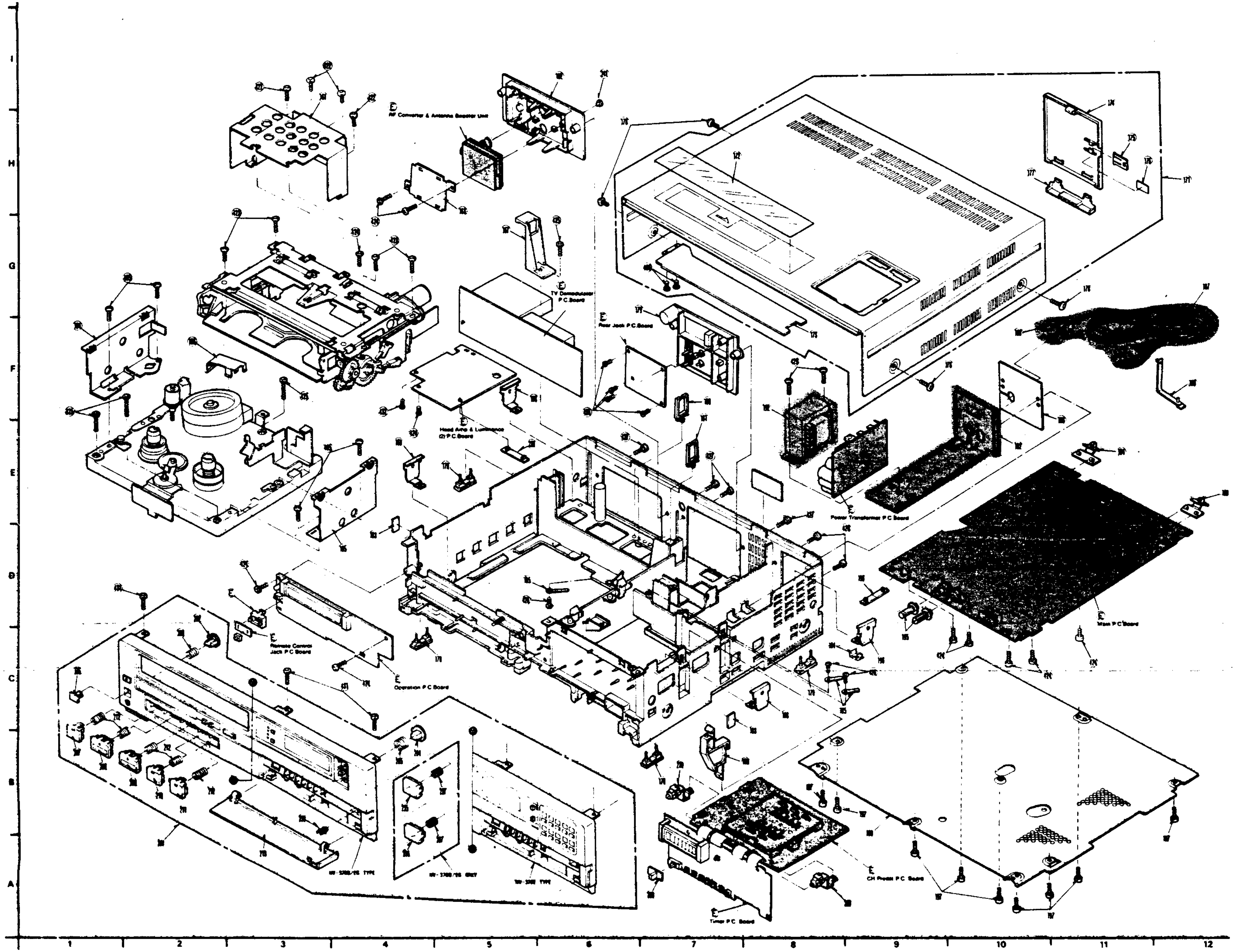
❺ *Casing Parts Section*


RF Converter & Antenna Booster Unit
TV Demodulator P.C.Board
Rear Jack P.C.Board
Head Amp & Luminance (2) P.C.Board
Power Transformer P.C Board
Main P.C Board
Remote Control Jack P.C Board
Operation P.C Board
CH Preset P.C Board
Timer P.C Board
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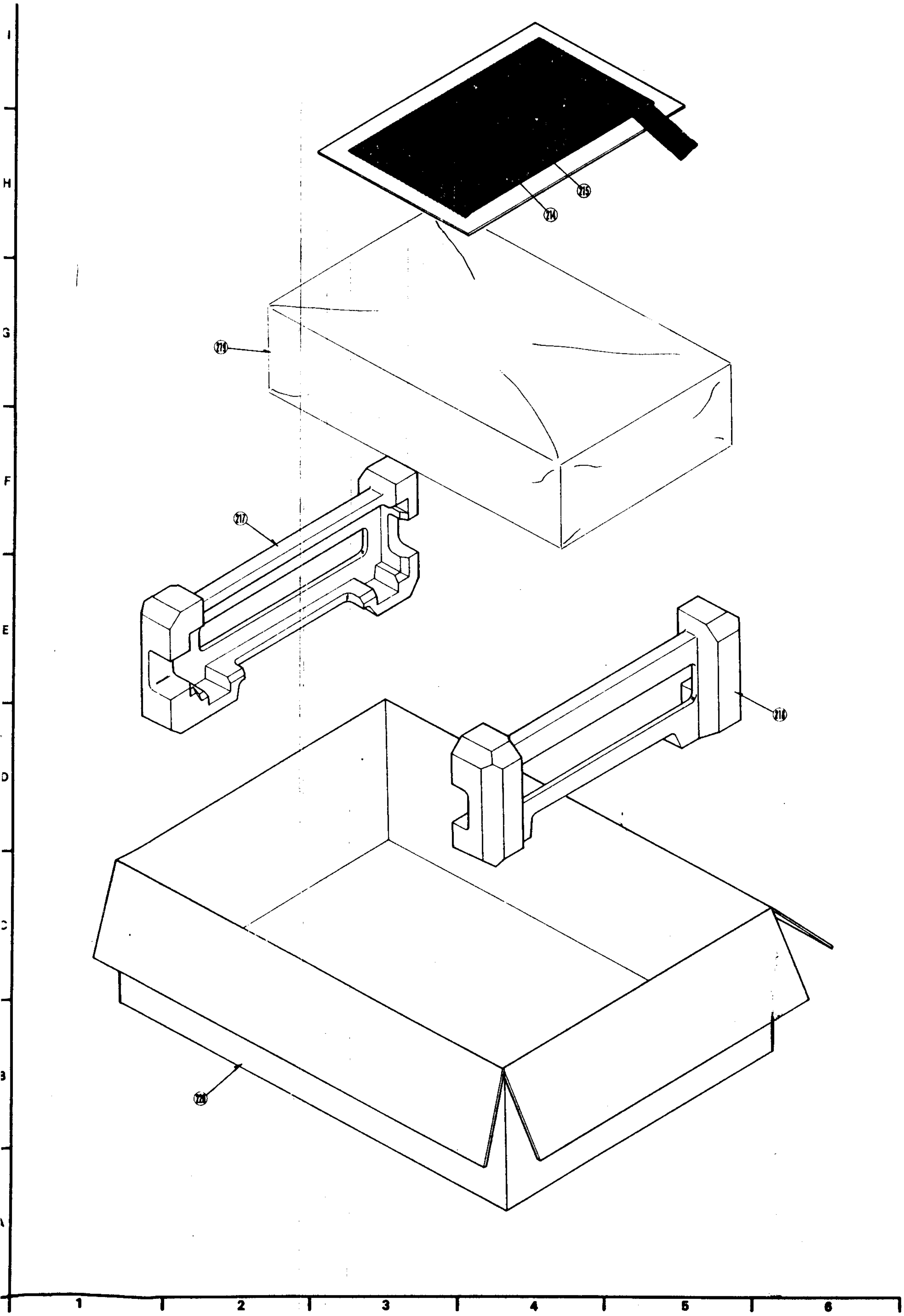
❻ *Packing Parts Section*



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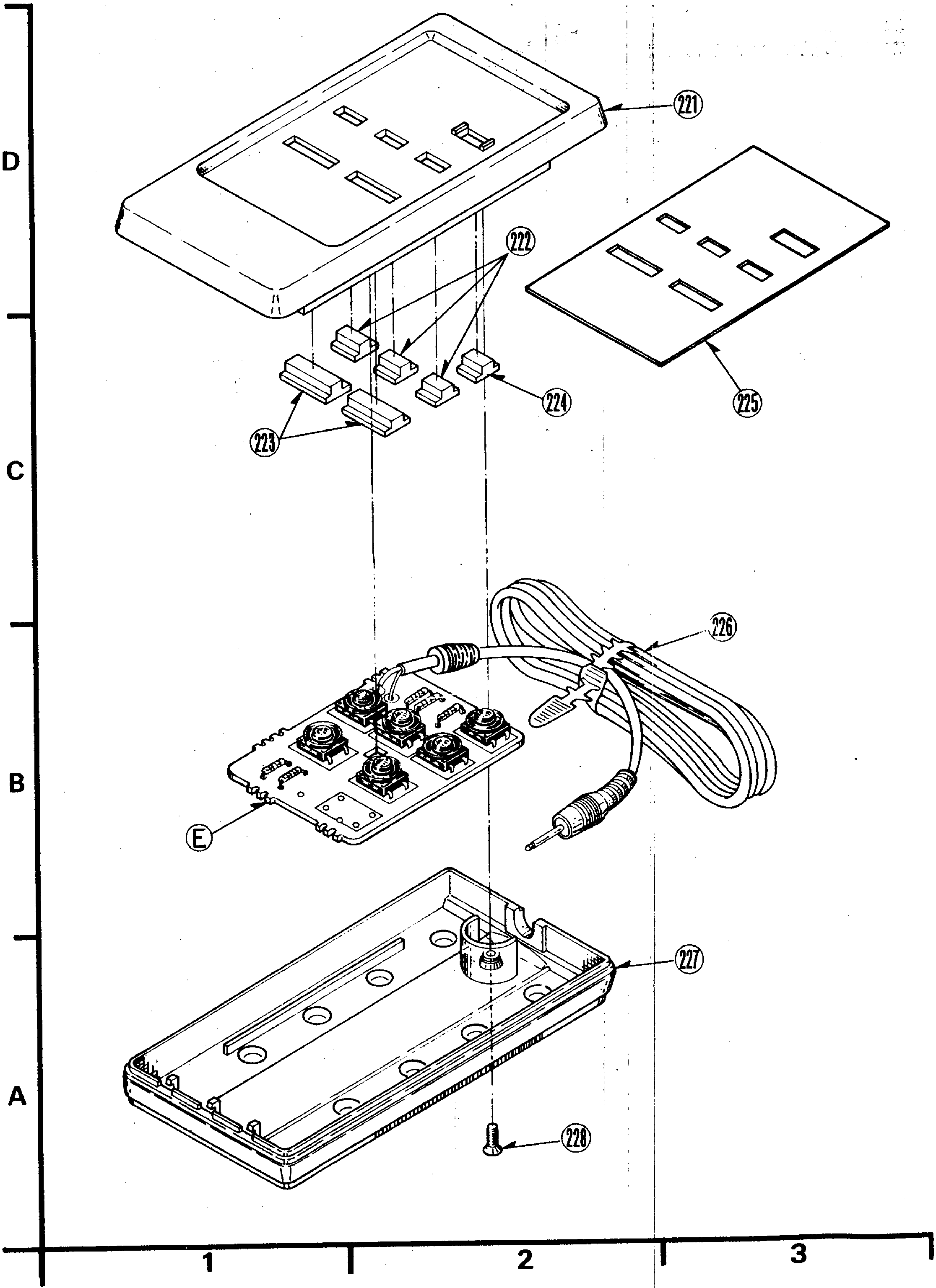
❼ *Remote Control Unit*



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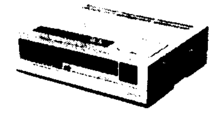
MECHANICAL REPLACEMENT PARTS LIST

Notes:
1. • Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
   Components identified by ⚠ have special characteristics important for safety.
   When replacing any of these components, use only the original ones.



Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
1(1)		VEG0292	DD Cylinder Unit	1	⚠
2(1)		VEH0218	Upper Cylinder Unit	1	
3(1)		VJR0089	RT Terminal	1	
4(1)		VMC0049	Power Tr. Pressure Spring	1	
5(1)		VBS0030	FE Head	1	
6(1)		VML1544	FE Lever	1	
7(1)		VMB1005	FE Lever Spring	1	
8(1)		VMD0570	Post Stopper	2	
9(1)		VXP0444	Roller Post Unit	2	
10(1)		VXA1964	Inclind Base (S) Unit	1	
11(1)		VXA1965	Inclind Base (T) Unit	1	
12(1)		VHD0133	Screw	2	
13(1)		VXA1963	Loading Base (1) Unit	1	
14(1)		VHD0045	Nut	1	
15(1)		VDP0908	Limiter Roller	1	
16(1)		VMX0288	Collar	1	
17(1)		VMX0456	Lower Limiter	1	
18(1)		VMX0663	Limiter Stand	1	
19(1)		VMB0754	P1 Spring	1	
20(1)		VMA6338	Position Adjust Hook	1	
21(1)		VMA6358	Position Plate	1	
22(1)		VMA4436	Shaft Holder Stopper	1	
23(1)		VXL0753	Loading Arm (L) Unit	1	
24(1)		VXL1152	Loading Arm (R) Unit	1	
25(1)		VMB0669	Loading Spring	2	
26(1)		VXP0520	Loading Gear Unit	2	
27(1)		VXA1966	Inclind Adjustment Plate	1	
28(1)		VHD0054	Adjustment Screw (15)	1	
29(1)		VMB0404	Adjustment Spring	1	
30(1)		VBR0070	A/C Head	1	
31(1)		VHD0089B	Azimuth Adjustment Screw	1	
32(1)		VHN0038	Nylon Nut	1	
33(1)		VXA1571	Head Base Unit	1	
34(1)		VMB1189	A/C Height Spring	1	
35(1,2)		VHN0023	M3 Nylon Nut	2	
36(1)		VMX0647	Post Sleeve	1	
37(1)		VMB1235	P4 Spring	1	
38(1)		VMA6357	Chassis Bracket	1	
39(1)		VXS0059	Earth Plate Unit	1	
40(1)		VMA6353	LED Holder Angle	1	
41(1)		VHN0031	"X" Adjustment Nut	1	
42(2)		VXL1157	Tension Arm (1) Unit	1	
43(2)		VMB1187	Tension Spring	1	
44(2)		VXZ0165	Tension Band Unit	1	
45(2)		VXR0118A	Supply Reel Table Unit	1	
46(2)		VXZ0159	Brake (S) Unit	1	
47(2)		VMB0661	Brake Arm Spring	1	
48(2)		VXR0119A	Takeup Reel Table Unit	1	
49(2)		VXZ0164	T Soft Brake (1) Unit	1	
50(2)		VMB1186	Soft Brake Spring	1	
51(2)		VXZ0161	Brake (T) Unit	1	
52(2)		VML1532	P5 Pull Out Lever	1	
53(2)		VXL1154	Pressure Roller Lever Unit	1	
54(2)		VMB1188	Pin Pressure Spring	1	
55(2)		VXL1187	P5 Arm Unit	1	
56(2)		VMB1217	P5 Spring	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
57(2,3)		VMX0653	Cut Washer	13	
58(2)		VMB1198	S Soft Brake Spring	1	
59(2)		VXZ0166	S Soft Brake Arm Unit	1	
60(2)		VXL1169	Select Lever (A) Unit	1	
61(2)		VMB1197	Select Lever Spring	1	
62(2)		VML1533	Select Lever (B)	1	
63(2)		VMS2504	Select Lever Shaft	1	
64(2)		VXP0521	Idler Arm Unit	1	
65(2)		VXA1968	Center Base Plate	1	
66(2)		VES0243	Safety Switch Unit	1	
67(2)		VEK2054	Dew Sensor Unit	1	
68(2)		VJF0004	Wire Saddle	1	
69(2)		VXA1970	Opener Angle Unit	1	
70(2)		VDG0147	Clutch Gear	1	
71(2)		VXP0523	Clutch Gear Unit	1	
72(2)		VDP0951	Clutch Pulley	1	
73(2)		VDG0155	Intermediate Gear (B)	1	
74(2)		VMB1195	Intermediate Geat Lift Spring	1	
75(2)		VDG0156	Intermediate Geat (A)	1	
76(3)		VEM0200	Loading Motor	1	⚠
77(3)		VMA6360	Loading Motor Bracket	1	
78(3)		VMX0251	Oil Seal	1	
79(3)		VMD0104	Oil Pool	1	
80(3)		VXD0087	Housing Unit	1	
81(3)		VDG0146	Intermediate Gear	1	
82(3)		VDG0151	Kick Gear	1	
83(3)		VXA1972	Kick Base (1) Unit	1	
84(3)		VDG0154	Select Gear	1	
85(3)		VXL1167	Select Gear Lever (1) Unit	1	
86(3)		VXL1168	Sector Gear Unit	1	
87(3)		VDG0145	Intermediate Gear	1	
88(3)		VDG0141	Cam Gear	1	
89(3)		VDG0143	Drive Gear (2)	1	
90(3)		VDG0142	Intermediate Pulley Gear	1	
91(3)		VDV0148	Loading Belt	1	
92(3)		VES0246	Mode Select SwitcH Unit	1	
93(3)		VMX0265	Thrust Washer	1	
94(3)		VXP0525	Capstan Rotor Unit	1	
95(3)		VEM2038	Capstan Stator Unit	1	⚠
96(3)		VXP0533	Capstan Pulley Unit	1	
97(3)		VDV0149	Capstan Belt	1	
98(3)		VXZ0168	Capstan Soft Brake Unit	1	
99(3)		VMB1204	Capstan Soft Brake Spring	1	
100(3)		VXA1996	Thrust Support Plate	1	
101(3)		VJR3	Clamper	1	
102(3)		VMX0396	Thrust Screw	1	
103(3)		VEH0213	FG Head Unit	1	
104(3)		VMX0308	Slide Washer	3	
105(3)		VMX0122	Slide Washer	3	
106(3)		VXL1158	Main Lever Unit	1	
107(3)		VMB1185	Kick Lever Spring	1	
108(3)		VMX0672	Cut Washer	1	
109(3)		VMX0644	Washer	1	
110(3)		VMB1184	Clutch Spring	1	
111(3)		VDG0153	Clutch Gear (1)	1	
112(3)		VDG0152	Clutch Gear (2)	1	
113(3)		VXL1165	Arm Lever (1) Unit	1	
114(3)		VMB1183	Sub Lever Spring	1	
115(3)		VXL1160	Sub Lever (1) Unit	1	
116(3)		VMB1192	Select Gear Lever Spring	1	
117(4)		VMA6354	Top Plate	1	
118(4)		VSM0047	Cassette In Detect Switch	1	
119(4)		VMD0580	Remains Display Board (L)	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
120(4)		VMD0581	Remains Display Board (R)	1	
121(4)		VMB1089	Wiper Spring (L)	1	
122(4)		VDG0115	Wiper Gear (L)	1	
123(4)		VML1436	Wiper Arm	1	
124(4)		VMS2305	Slider Roller Pin	2	
125(4)		VDP0839	Guide Roller	2	
126(4)		VXA1980	Side Plate (L)(1) Unit	1	
127(4)		VMS2468	Slide Roller Pin (2)	2	
128(4)		VDG0120	Intermediate Gear	2	
129(4)		VDG0157	Shaft Gear	2	
130(4)		VML1546	Front Opener Link	1	
131(4)		VMD0091	Transistor Holder	2	
132(4)		VDP0903	Wiper Roller	2	
133(4)		VDP0902	Cassette Holder Roller	2	
134(4)		VMD0452	Cassette Guide	1	
135(4)		VMD0448	Slider (L)	1	
136(4)		VMD0453	Safety Tab	1	
137(4)		VMD0577	Front Guide (L)	1	
138(4)		VMB1091	Safety Spring	1	
139(4)		VMD0454	Spring Holder	1	
140(4)		VMD0450	Slider (R)	1	
141(4)		VMD0576	Front Guide (R)	1	
142(4)		VXA1981	Side Plate (R)(1) Unit	1	
143(4)		VMS2499	Main Shaft	1	
144(4)		VKF0336	Blinder Panel	1	
145(4)		VMB1171	Blinder Panel Spring	1	
146(4)		VMD0455	F. Loading Motor Bracket	1	
147(4)		VDV0074	Loading Belt	1	
148(4)		VXA1754	Worm Shaft Pulley Unit	1	
149(4)		VDB0660	Worm Shaft Holder	1	
150(4)		VML1436	Wiper Arm	1	
151(4)		VDG0116	Wiper Gear (R)	1	
152(4)		VMP1090	Wiper Spring (R)	1	
153(4)		VMD0456	Stopper Ring	1	
154(4)		VDG0118	Clutch Gear	1	
155(4)		VMX0531	Clutch Spacer	1	
156(4)		VDG0117	Worm Wheel	1	
157(4)		VMB1093	Clutch Spring	1	
158(4)		VMX0530	Clutch Washer	1	
159(4)		VMA6340	Switch Bracket	1	
160(4)		VSM0046	Skeleton Switch	2	
161(5)		VSC1046	Shield Case	1	
162(5)		VJH0287	RF & ANT Board	1	
163(5)		VMA6381	RF & ANT Unit Mount Angle	1	
164(5)		VXA1987	Cassette Comp. Angle (L)	1	
165(5)		VXA1988	Cassette Comp. Angle (R)	1	
166(5)		VSC1047	Cylinder Shield Case	1	
167(5)		VGQ0558	Tuner Holder	1	
168(5)		VMP0370	Top Case Support Angle (A)	3	
169(5)		VKC0055	Hinge (A)	2	
170(5)		VKA0026	Rubber Foot	4	
171(5)		VYP0922	Top Panel Unit	1	NV-370E(Silver)
171(5)		VYP0927	Top Panel Unit	1	NV-370E(Black)/EG
171(5)		VYP0884	Top Panel Unit	1	NV-370B
172(5)		VQL2266	Characteristic Sticker	1	NV-370E
172(5)		VQL2228	Characteristic Sticker	1	NV-370EG/B
173(5)		VKW0271	Top Smoke Board	1	
174(5)		VKF0290	Preset Cover	1	NV-370E(Silver)
174(5)		VKF0293	Preset Cover	1	NV-370E(Black)/EG/B
175(5)		VGU1028	AFC Switch Knob	1	NV-370E(Silver)
175(5)		VGU1166	AFC Switch Knob	1	NV-370E(Black)/EG/B
176(5)		VQL2219	AFC Level	1	NV-370E(Silver)
176(5)		VQL2270	AFC Level	1	NV-370E(Black)/EG
177(5)		VKC0103	Preset Cover Mount Angle	1	NV-370E(Silver)

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
177(5)		VKC0110	Preset Cover Mount Angle	1	NV-370E(Black)/EG/B
178(5)		VHD0117	Screw	4	
179(5)		VEJ0293	Rear Jack Unit	1	
180(5)		VJF0031	Wire Saddle	1	
181(5)		VJF0022	Wire Saddle	1	
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
183(5)		VMT0085	Rubber Cushion	2	
184(5)		VMA6386	Earth Angle	1	
185(5)		VJR3	Clamper	3	
186(5)		VGH0079	Power Name Plate	1	
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
189(5)		VJF0139	AC Cord Clamper	1	
[illegible]		[illegible]	Power Transformer	1	[illegible]
[illegible]		[illegible]	Power Transformer	1	NV-370B
193(5)		VKC0012	Hinge (B)	1	
194(5)		VKC0107	Hinge (C)	1	
195(5)		VGU1027	VR Knob	2	
196(5)		VMP0403	Top Case Support Angle (B)	1	
197(5)		VHD0059	Screw	9	
198(5)		VKU0205	Bottom Plate	1	
199(5)		VJF0176	CH Preset P.C.B. Holder	1	
200(5)		VGU1026	Function Select Switch	1	
201(5)		VYP0923	Front Panel Unit	1	NV-370E(Silver)
201(5)		VYP0924	Front Panel Unit	1	NV-370E(Black)
201(5)		VYP0883	Front Panel Unit	1	NV-370EG/B
202(5)		VGQ0551	Button Holder	1	
203(5)		VMB0904	Button Spring (B)	1	
204(5)		VGU1025	Timer Rec Button	1	
205(5)		VMB1133	Button Spring (A)	1	
206(5)		VGU1001	Power Button	1	NV-370E(Silver)
206(5)		VGU1113	Power Button	1	NV-370(Black)/EG/B
207(5)		VGU1047	Rew Button	1	NV-370E(Silver)
207(5)		VGU1116	Rew Button	1	NV-370E(Black)/EG/B
208(5)		VGU1048	Stop Button	1	NV-370E(Silver)
208(5)		VGU1117	Stop Button	1	NV-370E(Black)/EG/B
209(5)		VGU1049	Play Button	1	NV-370E(Silver)
209(5)		VGU1118	Play Button	1	NV-370E(Black)/EG/B
210(5)		VGU1050	FF Button	1	NV-370E(Silver)
210(5)		VGU1119	FF Button	1	NV-370E(Black)/EG/B
211(5)		VGU1044	Pause/Still Button	1	NV-370E(Silver)
211(5)		VGU1115	Pause/Still Button	1	NV-370E(Black)/EG/B
212(5)		VMB1200	Button Spring (C)	5	
213(5)		VYF0334	Front Door Unit	1	NV-370E(Black)/EG/B
213(5)		VYF0335	Front Door Unit	1	NV-370E(Silver)
214(6)		VJA0130	DIN RF Cable	1	
215(6)		VSQ0330	Remote Control Unit	1	NV-370E(Silver)
215(6)		VSQ0329	Remote Control Unit	1	NV-370E(Black)/EG/B
216(6)		VQF1155	Fan Bag Kit	1	NV-370E⚠
216(6)		VQF1154	Fan Bag Kit	1	NV-370EG⚠
216(6)		VQF1153	Fan Bag Kit	1	NV-370B⚠
217(6)		VPN0944	Cushion (L)	1	
218(6)		VPN0943	Cushion (R)	1	
219(6)		VPF0144	Polyethylene Bag	1	
220(6)		VPG1558	Packing Case	1	NV-370E(Silver)
220(6)		VPG1559	Packing Case	1	NV-370E(Black)
220(6)		VPG1557	Packing Case	1	NV-370EG
220(6)		VPG1526	Packing Case	1	NV-370B
221(7)		VKM0263	Top Case	1	Remote Control Unit
					NV-370E(Silver)
221(7)		VKM0263	Top Case	1	Remote Control Unit
					NV-370E(Black)/EG/B
222(7)		VGU1130	Button (S)	3	Remote Control Unit

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
223(7)		VGU1129	Button (L)	2	Remote Control Unit
224(7)		VGU1131	Button (S), (Red)	1	Remote Control Unit
225(7)		VGH0112	Name Plate	1	Remote Control Unit
					NV-370E(Silver)
225,7)		VGH0111	Name Plate	1	Remote Control Unit
					NV-370E(Black)/EG/B
226(7)		VEC0289	Cord Unit	1	Remote Control Unit
227(7)		VKM0159	Bottom Case	1	Remote Control Unit
228(7)		XTS26+10GFZ	Screw	1	Remote Control Unit
229(4)		VGQ0571	Spacer	2	
230(5)		VKC0076	Hinge(D)	2	
231(1)		VMD0369	Wire Holder	1	
232(4)		VXA2054	Cassette Holder (1) Unit	1	
233(3)		VMT0101	Stopper Cushion	1	
234(3)		VHD0146	Screw	1	
235(5)		VGU1034	CH Up Botton	1	NV-370EG/B
236(5)		VGU1035	CH Down Botton	1	NV-370EG/B
237(5)		VMB1200	Spring	2	NV-370EG/B
238(5)		VGQ0550	Timer Door Lock Piece	1	
239(5)		VKC0083(E)	Hinge	1	
240(4)		**MXN-12AE10C**	**Front Loading Motor**	**1**	△ [illegible]
241(5)		VMG0272	RF Converter Bushing	1	
			Screws		
401(1)		XYNV3+B8BNS		2	
402(1)		XTN26+6G		1	
403(1)		XYE3+BF15FZ		4	
404(1)		XYN3+F8FZS		2	
405(1,2,3,4,5)		XTV3+8F		27	
406(1)		XSS26+6		1	
407(1,3,4)		XTV3+6F		5	
408(1)		XYN3+F6FZS		1	
409(1,4)		XYN3+C4S		3	
410(1)		XSN3D10FZS		1	
411(1,3)		XTV3+8FFZ		3	
412(1)		XYN3+C8S		3	
413(2,4)		XYE3+EF8		2	
414(2)		XYE3+BF9FZ		2	
416(3)		XYE3+BF8FZ		1	
417(4)		XTS3+8F		4	
418(4)		XTB3+8GK		4	
419(4)		XTB3+8FK		6	
420(4)		XYE3+FE6		1	
421(4)		XYN2+F10		2	
422(1,5)		XTV3+8JR		6	
423(5)		XYN3+8FRS		4	
424(5)		XTV3+10GR		11	
425(5)		XTV4+30A		3	
426(5)		XTV3+8G		4	
427(5)		XTV3+10JFZ		4	
428(5)		XTV3+8FZS		2	
429(5)		XTV4+15A		2	
430(5)		XTV3+8JZF		2	
431(5)		XTW3+8PR		3	
432(4)		XTV3+8FR		1	
433(4)		XYE3+EF10		2	
434(5)		XTS23+6J		2	
435(5)		XTV3+10G		1	
			WASHERS & Rings		
501(1,2,3)		XUEV4VW		14	
502(1)		XWE5		1	
503(2,3)		XUEV3VW		7	
504(2,3)		XWGV3D7G		10	
505(2)		XWGV6F9G		1	
506(2,3,4)		XWGV4D9G		6	
507(2)		XUC15FP		1	
508(2)		XWGV3D12G		1	
509(3)		XWGV4D11G		3	
510(4)		XUC3FP		5	
511(4)		XUC25FP		3	
512(2)		XWGV3D8G		2	
513(3)		XWGV3Y6G		2	
514(2)		XWGV3D54G		2	
515(3)		XWGV5Y9G		1	

ELECTRICAL REPLACEMENT PARTS LIST

Model No. NV-370E/EG/B

Notes:

1. • Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE: Components identified by △ mark [illegible]. When replacing any of these components, use only the original ones.
3. Unless otherwise specified.
   All resistors are in OHMS (Ω), 1/4 W ± 5% carbon. K=1,000Ω, M=1,000KΩ.
   All capacitors are in MICROFARADS (μF), ±10% P=μμF.

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
		VEP03194[illegible]	Main (Power Supply,	1	NV-370B△
			Servo, Luminance (1),		
			Chrominance, Audio &		
			System Control) P.C.		
			Board Unit		
		VEP03196E	Main (Power Supply,	1	NV-370E/EG△
			Servo, Luminance (1),		
			Chrominance, Audio &		
			System Control) P.C.		
			Board Unit		
		VEP05051A	Head Amp & Luminance (2)	1	
			P.C. Board Unit		
		VEP06211B	Operation P.C. Board Unit	1	
		VEP07184A	Timer P.C. Board Unit	1	NV-370B/EG
		VEP07185A	Channel Preset P.C. Board	1	NV-370B△
			Unit		
		VEP07185B	Channel Preset P.C. Board	1	NV-370EG△
			Unit		
		VEP07186B	TV Demodulator P.C. Board	1	NV-370B△
			Unit		
		VEP07186E	TV Demodulator P.C. Board	1	NV-370E/EG△
			Unit		
		VEP07189A	Timer P.C. Board Unit	1	NV-370E
		VEP07190A	Channel Preset P.C. Board	1	NV-370E△
			Unit		
		ENC87751	RF Converter & Antenna	1	NV-370E/EG△
			Booster Unit		
		ENC87752	RF Converter & Antenna	1	NV-370B△
			Booster Unit		
		VJB00976	Sensor LED P.C. Board	1	
		VJB01141	Power Transformer P.C.	1	NV-370B△
			Board		
		VJB01142	Power Transformer P.C.	1	NV-370E/EG△
			Board		
		VJB00A53	Reel Sensor P.C. Board	1	
		VJB00A54	Loading Motor Connection	1	
			P.C. Board		
		VJB00A55	Front Connection P.C.	1	
			Board		

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
		VJB00A56	Takeup Photo Transistor	1	
			P.C. Board		
		VJB00A82	F. Loading Motor	1	
			Connection P.C. Board		
		VJB00A86	Power Transistor P.C.	1	
			Board		
		VJB00A94	Supply Photo Transistor	1	
			P.C. Board		
		VJB00A97	Rear Jack P.C. Board	1	
		VJB00B24	Remote Control Jack	1	
			P.C. Board		
		VEP09001D	Remote Control P.C. Board	1	
T1101		VTP0101	Power Transformer	1	NV-370B△
T1101		ETP57PS200E	Power Transformer	1	NV-370E/EG△
F1101		XBA2C02TR0C	Fuse (200mA)	1	△ [illegible]
		VEP03194B/E	Main (Power Supply,		△
			Servo, Luminance (1),		
			Chrominance, Audio &		
			System Control) P.C.		
			Unit		
			(Power Supply Section)		
			Transistors		
Q1001		2SD636		1	(Q,R,S,T) or 2SC2021M
					(Q,R,S,E)
Q1002		2SD1275		1	(P,Q)△
Q1003		2SD636		1	(Q,R,S,T) or 2SC2021M
					(Q,R,S,E)
			Diodes		
D1001		10E1		1	or ERB12O1C1△
D1002		RD3.9EB1	Zener	1	
			Resistors		
R1001		ERQ14LKR39[illegible]	Metal 0.39	1	△ [illegible]
R1002		ERDS2TJ471	470	1	
R1003		EVN38CA00B23	Variable 2K	1	
R1004		ERDS2TJ392	3.9K	1	
R1005		ERDS2CKG3901	Metal 3.9K	1	
R1006		ERDS2CKG3301	Metal 3.3K	1	

Ref. No.		Part No.	Part Name · Description	Pcs / Set	Remarks
R1007		ERDS2TJ103	10K	1	
R1008		ERDS2TJ682	6.8K	1	
R1009		ERDS2TJ472	4.7K	1	
			Capacitors		
C1001		ECKF1H103KB		1	
C1002		ECEA0JK470		1	
C1003		ECEA1HS470		1	
			(Servo Section)		
			Integrated Circuits		
IC2001		AN6359N		1	
IC2002		MN6168VIF		1	
IC2003		AN6356N		1	
IC2004		AN3822		1	
IC2005		AN6387		1	
IC2006		BAL6309		1	
IC2010		μPC358C		1	
			Transistors		
Q2001,2002		2SD636		2	(P,Q,R,S,T)
					or 2SC2021M(Q,R,S,E)
Q2003		2SB641		1	(P,Q,R,S)
					or 2SA937M(Q,R,S)
Q2006		2SD636		1	(P,Q,R,S)
					or 2SC2021M(Q,R,S,E)
			Combination Parts		
			(Transistor & Resistor)		
QR2003		UN1213		1	or DTC144A
QR2004		UN1113		1	or DTA144A
QR2005,2006		UN1213		2	or DTC144A
			Diodes		
D2001,2002		MA165		2	or 1SS133
D2003		10E1		1	
D2004		MA154WK		1	
D2005,2006		MA165		2	or 1SS133
D2011-2014		MA165		4	or 1SS133
			Resistors		
R2001		ERDS2TJ223	22K	1	
R2002		ERDS2TJ272	2.7K	1	
R2003		ERDS2TJ472	4.7K	1	
R2004		ERDS2TJ154	150K	1	
R2005		ERDS2TJ333	33K	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
R2006		ERDS2TJ154	150K	1	
R2007		ERDS2TJ332	3.3K	1	
R2008		ERDS2TJ124	120K	1	
R2009		ERDS2TJ154	150K	1	
R2010		ERDS2TJ563	56K	1	
R2011		ERDS2TJ103	10K	1	
R2012		ERDS2TJ274	270K	1	
R2013		ERDS2TJ682	6.8K	1	
R2014		ERDS2TJ222	2.2K	1	
R2015		EVJ1EAF20B15	Variable 100K	1	
R2016		EVN61AA00B15	Variable 100K	1	
R2017		ERDS2TJ102	1K	1	
R2018		EVN61AA00B54	Variable 50K	1	
R2019		ERDS2TJ153	15K	1	
R2020		ERDS2TJ223	22K	1	
R2021		ERDS2TJ391	390	1	
R2022		ERDS2TJ563	56K	1	
R2023		ERDS2TJ473	47K	1	
R2024,2025		ERDS2TJ223	22K	2	
R2026		ERDS2TJ104	100K	1	
R2027		ERDS2TJ393	39K	1	
R2028		ERDS2TJ124	120K	1	
R2029		ERDS2TJ222	2.2K	1	
R2030,2031		ERDS2TJ103	10K	2	
R2032		ERDS2TJ562	5.6K	1	
R2033		ERDS2TJ103	10K	1	
R2034		ERDS2TJ105	1M	1	
R2035		ERX12ANJR82	Metal 1/2W 0.82	1	
R2036		ERDS2TJ102	1K	1	
R2037		ERDS2TJ103	10K	1	
R2038-2040		ERDS2TJ224	220K	3	
R2041		ERDS2TJ181	180	1	
R2042		ERDS2TJ104	100K	1	
R2043		ERDS2TJ124	120K	1	
R2044		ERX12ANJR68	Metal 1/2W 0.68	1	
R2045-2047		ERDS2TJ150	15	3	
R2049		ERQ12HJ6R8	Metal 1/2W 6.8	1	⚠
R2050		ERDS2TJ563	56K	1	
R2051		ERDS2TJ104	100K	1	
R2052		EVTK4CA00B15	Variable 100K	1	
R2053		ERDS2TJ102	1K	1	
R2054		ERDS2TJ104	100K	1	
R2055		ERDS2TJ105	1M	1	
R2056		ERDS2TJ183	18K	1	
R2058		ERDS2TJ333	33K	1	
R2059		ERDS2TJ102	1K	1	
R2060		ERDS2TJ472	4.7K	1	
R2063		ERDS2TJ102	1K	1	
R2089		ERDS2TJ472	4.7K	1	
R2090		ERDS2TJ564	560K	1	
R2091		ERDS2TJ561	560	1	
R2092		ERDS2TJ104	100K	1	
R2093		ERDS2TJ105	1M	1	
R2094		ERDS2TJ102	1K	1	
			Capacitors		
C2001		ECQM1H104JZ	Mylar 50V 0.1	1	
C2003		VCYG1E562JR	Semiconductor 25V 5600P	1	
C2004		ECEA1HK0R1	Electrolytic 50V 0.1	1	
C2005		ECQM1H223JZ	Mylar 50V 0.022	1	or ECQB1H223JH
C2006		ECEA0JK101	Electrolytic 6.3V 100	1	
C2007		VCYG1E562JR	Semiconductor 25V 5600P	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
C2008		ECEA1HK0R1	Electrolytic 50V 0.1	1	
C2009		ECEA0JK330	Electrolytic 6.3V 33	1	
C2010		ECEA1HK010	Electrolytic 50V 1	1	
C2011		ECQM1H334JV	Mylar 50V 0.33	1	
C2012		ECQM1H683JZ	Mylar 50V 0.068	1	
C2013		ECKF1H472KB	Ceramic 50V 4700P	1	
C2014,2015		ECEA1CK100	Electrolytic 16V 10	2	
C2016		ECEA0JK470	Electrolytic 6.3V 47	1	
C2017		ECEA10V100T	Electrolytic 10V 10	1	
C2018		ECQM1H104JZ	Mylar 50V 0.1	1	
C2019		ECEA0JK101	Electrolytic 6.3V 100	1	
C2020		ECQM1H104JZ	Mylar 50V 0.1	1	
C2021		ECEA1HK010	Electrolytic 50V 1	1	
C2022-2024		ECKF1H272KB	Ceramic 50V 2700P	3	
C2025-2027		ECEA1EK4R7	Electrolytic 25V 4.7	3	
C2028		ECKF1H222KB	Ceramic 50V 2200P	1	
C2029		VCYG1E682JR	Semiconductor 25V 6800P	1	
C2030		ECKF1H103ZF	Ceramic 50V 0.01	1	
C2031		ECEA1HKR22	Electrolytic 50V 0.22	1	
C2032		VCYG1E123JR	Semiconductor 25V 0.012	1	
C2033		ECEA1EK3R3	Electrolytic 25V 3.3	1	
C2034		ECEA1CK470	Electrolytic 16V 47	1	
C2035-2037		ECEA1EKL4R7	Electrolytic 25V 4.7	3	
C2038		ECEA1HKN010	Electrolytic 50V 1	1	
C2039		ECKF1H152KB	Ceramic 50V 1500P	1	
C2040		ECEA1HK0R1	Electrolytic 50V 0.1	1	
C2041		ECQB1H222KH	Mylar 50V 2200P	1	
C2042		ECKF1H103ZF	Ceramic 50V 0.01	1	
C2043		ECQM1H153JZ	Mylar 50V 0.015	1	or ECQB1H153JH
C2044,2045		ECQM1H332JZ	Mylar 50V 3300P	2	or ECQB1H332JH
C2046		ECEA1EKN2R2	Electrolytic 25V 2.2	1	
C2047		ECEA1HK010	Electrolytic 50V 1	1	
C2066		ECEA1HK010	Electrolytic 50V 1	1	
C2068		ECQM1H104JZ	Mylar 50V 0.1	1	
C2069,2070		ECEA0JK101	Electrolytic 6.3V 100	2	
C2071		ECEA1CK470	Electrolytic 16V 47	1	
C2072		ECEA0JK101	Electrolytic 6.3V 100	1	
C2073		ECEA1EK470	Electrolytic 25V 47	1	
			Combination Circuits		
			(Capacitor & Resistor)		
CR2001		EXED472M104T	4700PF 100KΩ	1	
CR2002		EXED223M222T	0.022μF 2.2KΩ	1	
			(Luminance (1) Section)		
			Integrated Circuit		
IC3001		BA7004		1	
			Transistors		
Q3001		2SC2206		1	
Q3002		2SD636		1	(P,Q,R,S,T)
					or 2SC2021M(Q,R,S,E)

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			Diodes		
D3001		MA154WK		1	
D3002		MA165		1	or 1SS133
D3003		MA154WK		1	
D3004,3005		MA165		2	or 1SS133
			Resistors		
R3001		ERDS2TJ103	10K	1	
R3002		ERDS2TJ392	3.9K	1	
R3003		ERDS2TJ152	1.5K	1	
R3004		ERDS2TJ102	1K	1	
R3005		ERDS2TJ331	330	1	
R3006		ERDS2TJ103	10K	1	
R3007		ERDS2TJ223	22K	1	
R3008		ERDS2TJ822	8.2K	1	
R3009,3010		ERDS2TJ102	1K	2	
R3011		ERDS2TJ152	1.5K	1	
R3012		ERDS2TJ561	560	1	
R3013		ERDS2TJ102	1K	1	
R3015		ERDS2TJ750	75	1	
R3016		ERDS2TJ102	1K	1	
R3017		ERDS2TJ750	75	1	
R3018		EVJ1EAF20B23	Variable 2K	1	
R3019		ERDS2TJ103	10K	1	
R3036		ERDS2TJ681	680	1	
R3037		ERDS2TJ271	270	1	
			Capacitors		
C3001		ECEA1CK100	Electrolytic 16V 10	1	
C3002		ECEA1CK470	Electrolytic 16V 47	1	
C3003		ECEA1AK331BJ	Electrolytic 10V 330	1	
C3004		ECEA1AKN330J	Electrolytic 10V 33	1	
C3005,3006		ECEA1CK100	Electrolytic 16V 10	2	
C3007,3008		VCYG1E332KR	Semiconductor 25V 3300P	2	
C3009		ECCF1H390K	Ceramic 50V 39P	1	
			Coils		
L3001,3002		VLQEL05F101K	100μH	2	
			Crystal Oscillator		
X3001		VSX0099		1	
			Filter		
FL3001		VLF0188		1	
			Switch		
S3001		VSS0093		1	
			(Audio Section)		

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			Integrated Cricuits		
IC4001		TA7355P		1	
IC4002		μPC1514CA		1	
			Transistors		
Q4001		2SD639		1	(R)
Q4002		2SD655		1	(E) or 2SD655(F)
			Resistors		
R4001		ERDS2TJ104	100K	1	
R4002		ERDS2TJ331	330	1	
R4003		ERDS2TJ124	120K	1	
R4004		ERDS2TJ332	3.3K	1	
R4005		ERDS2TJ100	10	1	
R4006		EVN61AA00B13	Variable 1K	1	
R4007		ERDS2TJ103	10K	1	
R4008		ERDS2TJ473	47K	1	
R4009		ERDS2TJ222	2.2K	1	
R4011		ERDS2TJ123	12K	1	
R4012		ERDS2TJ103	10K	1	
R4013		ERDS1TJ335	1/2W 3.3M	1	
R4014		ERDS2TJ221	220	1	
R4015		ERDS2TJ472	4.7K	1	
R4016		ERDS2TJ182	1.8K	1	
R4017		ERDS2TJ153	15K	1	
R4018		EVN61AA00B15	Variable 100K	1	
R4019		ERDS2TJ153	15K	1	
R4021		ERDS2TJ102	1K	1	
R4023		ERDS2TJ561	560	1	
			Capacitors		
C4001		ECEA1CK100	Electrolytic 16V 10	1	
C4002		ECEA1AU221	Electrolytic 10V 220	1	
C4003		ECQM1H102JZ	Mylar 50V 1000P	1	or ECQB1H102JH
C4004		ECEA1CK100	Electrolytic 16V 10	1	
C4005		ECEA1AK330	Electrolytic 10V 33	1	
C4006		ECQM1H333JZ	Mylar 50V 0.033	1	or ECQB1H333JH
C4008		ECEA1HK010	Electrolytic 50V 1	1	
C4009		ECEA1AK330	Electrolytic 10V 33	1	
C4010		ECEA1CK100	Electrolytic 16V 10	1	
C4011		ECEA0JK470	Electrolytic 6.3V 47	1	
C4012		ECQM1H223JZ	Mylar 50V 0.022	1	or ECQB1H223JH
C4013		VCYC1E103JR	Semiconductor 25V 0.01	1	
C4014		ECKF1H102KB	Ceramic 50V 1000P	1	
C4015		ECQF6222KZ	Mylar 6V 2200P	1	
C4016		ECEA1CK100	Electrolytic 16V 10	1	
C4017		ECKD2H121KB	Ceramic 500V 120P	1	
C4018		ECKF1H683	Ceramic 50V 0.068	1	
C4019		ECEA1CS101	Electrolytic 16V 100	1	
C4020		ECEA1CU221	Electrolytic 16V 220	1	
C4021		ECQB1H103KH	Mylar 50V 0.01	1	
C4022		ECQB1H273KH	Mylar 50V 0.027	1	
			Coils		
L4001		VTQ0014	10mH	1	
L4002		VLQEL05F471K	470μH	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
L4003,4004		VTQ0014	10mH	2	
			Transformer		
T4001		EIQ7QF001B		1	
			(System Control Section)		
			Integrated Circuits		
IC6001		MN15342VGC.3		1	
IC6002,6003		BA6209		2	
IC6004,6005		AN6914		2	
			Transistors		
Q6001,6002		2SD636		2	(P,Q,R,S,T)
					or 2SC2021M(Q,R,S,E)
Q6003		2SB719		1	(R,S)
Q6004		2SB641		1	(P,Q,R,S)
					or 2SC2021M(Q,R,S)
Q6005		2SA719		1	(R,S)
Q6007		2SA719		1	(P,Q,R,S)
Q6008		2SB641		1	(P,Q,R,S)
					or 2SA937M(Q,R,S)
Q6012		2SD636		1	(P,Q,R,S)
			Combination Parts		
			(Transistor & Resistor)		
QR6001		DTC124A		1	or UN1212
QR6002,6003		DTC114A		2	or UN1211
QR6004~6006		DTC124A		3	or UN1212
QR6007		DTC114A		1	or UN1211
QR6012		DTC144A		1	or UN1213
QR6018		DTC124A		1	or UN1212
			Diodes		
D6001-6005		MA165		5	or 1SS133
D6007-6016		MA165		10	or 1SS133
D6019-6021		MA165		3	or 1SS133
D6022,6023		MA165		2	or 1SS133
D6025		MA165		1	or 1SS133
D6029,6030		MA165		2	or 1SS133
D6040		MA165		1	or 1SS133
D6041		10E1		1	
D6042-6044		MA165		3	or 1SS133
D6052,6053		MA165		2	or 1SS133
D6055,6056		MA165		2	or 1SS133
			Resistors		

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
R6001	ERG1ANJ680	Metal 1W 68	1	
R6002	ERDS2TJ220	22	1	
R6003	ERDS2TJ681	680	1	
R6004	ERDS2TJ332	3.3K	1	
R6005,6006	ERDS2TJ681	680	2	
R6007	ERDS2TJ332	3.3K	1	
R6008,6009	ERDS2TJ103	10K	2	
R6010	ERDS2TJ152	1.5K	1	
R6011	ERDS2TJ102	1K	1	
R6012	ERDS2TJ682	6.8K	1	
R6013	ERDS2TJ563	56K	1	
R6014	ERDS2TJ222	2.2K	1	
R6015	ERDS2TJ153	15K	1	
R6016	ERDS2TJ103	10K	1	
R6017	ERDS2TJ333	33K	1	
R6019	ERDS2TJ103	10K	1	
R6021	ERDS2TJ105	1M	1	
R6022	ERDS2TJ474	470K	1	
R6023	EROS2CKG2261	Metal 2260	1	
R6024	EROS2CKG1542	Metal 15.4K	1	
R6025	EROS2CKG1212	Metal 12.1K	1	
R6026	ERDS2TJ103	10K	1	
R6029	ERDS2TJ103	10K	1	
R6030	ERDS2TJ332	3.3K	1	
R6031	ERDS2TJ822	8.2K	1	
R6032	ERDS2TJ332	3.3K	1	
R6033	ERDS2TJ682	6.8K	1	
R6034	ERDS2TJ562	5.6K	1	
R6035	ERDS2TJ332	3.3K	1	
R6038,6039	ERDS2TJ103	10K	2	
R6040,6041	ERDS2TJ105	1M	2	
R6043	ERDS2TJ332	3.3K	1	
R6047	ERDS2TJ333	33K	1	
R6048	ERDS2TJ560	56	1	
R6050	ERDS2TJ391	390	1	
R6051	ERDS2TJ333	33K	1	
R6052	ERDS2TJ223	22K	1	
R6053	ERDS2TJ182	1.8K	1	
R6054	ERDS2TJ223	22K	1	
R6055	ERDS2TJ822	8.2K	1	
R6056-6059	ERDS2TJ223	22K	4	
R6067-6069	ERDS2TJ223	22K	3	
R6070	ERDS2TJ562	56K	1	
R6077	ERDS2TJ682	6.8K	1	
R6078	ERDS2TJ333	33K	1	
R6080	ERDS2TJ332	3.3K	1	
R6081	ERDS2TJ392	3.9K	1	
R6082	ERDS2TJ473	47K	1	
R6083	ERDS2TJ222	2.2K	1	
R6085	ERD10TJ222	1/8W 2.2K	1	
R6086	ERDS2TJ102	1K	1	
		Capacitors		
C6001	ECQB1H472KH	Mylar 50V 4700P	1	
C6002	ECKF1H681KB	Ceramic 50V 680P	1	
C6003,6004	ECKF1H103ZF	Ceramic 50V 0.01	2	
C6005	ECEA0JK101	Electrolytic 6.3V 100	1	
C6006	ECKF1H221KB	Ceramic 50V 220P	1	
C6007	ECEA1HK010	Electrolytic 50V 1	1	
C6008	ECKF1H103ZF	Ceramic 50V 0.01	1	
C6009	ECEA0JK470	Electrolytic 6.3V 47	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
C6010	ECQM1H682JZ	Mylar 50V 6800P	1	
C6011	ECQM1H184JZ	Mylar 50V 0.18	1	
C6012-6014	ECKF1H103ZF	Ceramic 50V 0.01	3	
C6015,6016	ECCF1H330J	Ceramic 50V 33P	2	
C6019	ECKF1H103ZF	Ceramic 50V 0.01	1	
C6020	ECQM1H682JZ	Mylar 50V 6800P	1	
C6021	ECQM1H184JZ	Mylar 50V 0.18	1	
C6022,6023	ECQM1H104JZ	Mylar 50V 0.1	2	
C6024	ECEA1EK330	Electrolytic 25V 33	1	
C6029	ECEA1EK3R3	Electrolytic 25V 3.3	1	
C6030	ECEA0JK101	Electrolytic 6.3V 100	1	
C6031	ECEA0JKN470	Electrolytic 6.3V 47	1	
		Crystal Oscillator		
X6001	VSX0082		1	
		(Chrominance Section)		
		P.C.B. Ass'y		
IC8001	VEFC007		1	
		Integrated Circuit		
IC8002	BA7025L		1	NV-370EG
		Transistors		
Q8001	2SB641		1	(P,Q,R,S,T)
				or 2SA973M(Q,R,S)
Q8003,8004	2SD636		2	(P,Q,R,S,T)
				or 2SC2021M(Q,R,S,E)
Q8006	2SD636		1	(P,Q,R,S,T)
				or 2SC2021M(Q,R,S,E)
Q8007	2SD636		1	(P,Q,R,S,T) NV-370EG
Q8008	2SD636		1	(P,Q,R,S,T)
				or 2SC2021M(Q,R,S,E)
Q8009	2SD636		1	(P,Q,R)
				or 2SC2021M (Q,R,S,E)
		Combination Cricuit		
		(Transistor & Resistor)		
QR8001	DTC124A		1	or UN1212
QR8002	DTC124A		1	or UN1212 NV-370EG
QR8003	DTC144A		1	or UN1213
		Diode		
D8001	MA165		1	or 1SS133
D8002	MA165		1	or 1SS133 NV-370EG
		Resistors		
R8001	ERDS2TJ272	2.7K	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
R8003		ERDS2TJ102	1K	1	
R8004		ERDS2TJ471	470	1	
R8005		ERDS2TJ222	2.2K	1	
R8006		ERDS2TJ103	10K	1	
R8007		ERDS2TJ105	1M	1	
R8009		ERDS2TJ182	1.8K	1	
R8010		ERDS2TJ562	5.6K	1	
R8011		ERDS2TJ272	2.7K	1	
R8012,8013		ERDS2TJ103	10K	2	
R8014		ERDS2TJ681	680	1	NV-370EG
R8015		ERDS2TJ102	1K	1	
R8016		ERDS2TJ101	100	1	
R8017		ERDS2TJ102	1K	1	
R8018		ERDS2TJ562	5.6K	1	
R8019		ERDS2TJ822	8.2K	1	
R8020		ERDS2TJ271	270	1	
R8021		ERDS2TJ122	1.2K	1	
R8022		ERDS2TJ393	39K	1	
R8023		ERDS2TJ333	33K	1	
R8024		ERDS2TJ471	470	1	
R8025		ERDS2TJ472	4.7K	1	NV-370EG
R8026		ERDS2TJ122	1.2K	1	NV-370EG
R8027		ERDS2TJ272	2.7K	1	NV-370EG
R8028,8029		ERDS2TJ103	10K	2	NV-370EG
R8030		ERDS2TJ390	39	1	NV-370EG
R8031		ERDS2TJ222	2.2K	1	NV-370EG
R8032		ERDS2TJ154	150K	1	NV-370EG
R8033		ERDS2TJ223	22K	1	NV-370EG
R8034		ERDS2TJ102	1K	1	NV-370EG
R8035		ERDS2TJ470	47	1	
R8036		ERDS2TJ104	100K	1	
R8037,8038		ERDS2TJ562	5.6K	2	
R8039		ERDS2TJ821	820	1	
R8040		ERDS2TJ152	1.5K	1	
R8042		ERDS2TJ822	8.2K	1	
R8043		ERDS2TJ333	33K	1	
R8044		ERDS2TJ473	47K	1	
			Capacitors		
C8001		ECKF1H221KB	Ceramic 50V 220P	1	
C8002		ECCF1H270K	Ceramic 50V 27P	1	
C8003		ECKF1H472ZF	Ceramic 50V 4700P	1	
C8004		ECEA1CK470	Electrolytic 16V 47	1	
C8005		ECKF1H102KB	Ceramic 50V 1000P	1	
C8006		ECQM1H223JZ	Mylar 50V 0.022	1	or ECQB1H223JH
C8007		ECEA6V220L	Electrolytic 6V 22	1	
C8008		ECKF1H103ZF	Ceramic 50V 0.01	1	
C8009		ECKF1H471KB	Ceramic 50V 470P	1	
C8010		VCYG1E103KR	Semiconductor 25V 0.01	1	
C8011		ECQM1H154JZ	Mylar 50V 0.15	1	
C8012		ECKF1H102KB	Ceramic 50V 1000P	1	NV-370EG
C8013		ECEA1CK100	Electrolytic 16V 10	1	
C8014		ECEA0JK470	Electrolytic 6.3V 47	1	
C8015		ECKF1H103ZF	Ceramic 50V 0.01	1	
C8016		ECEA0JK470	Electrolytic 6.3V 47	1	
C8017		ECKF1H103ZF	Ceramic 50V 0.01	1	NV-370EG
C8018		ECKF1H102ZF	Ceramic 50V 1000P	1	NV-370EG
C8019		ECEA1AK330	Electrolytic 10V 33	1	NV-370EG
C8020		ECKF1H102KB	Ceramic 50V 1000P	1	NV-370EG
C8021		ECQV1H563JZ	Mylar 50V 0.056	1	NV-370EG

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
C8022		ECEA1AK330	Electrolytic 10V 33	1	NV-370EG
C8023		ECEA0JK470	Electrolytic 6.3V 47	1	NV-370EG
C8024		ECEA1OK100	Electrolytic 16V 10	1	
C8025		ECQM1H104JZ	Mylar 50V 0.1	1	
C8026		ECKF1H103ZF	Ceramic 50V 0.01	1	
C8027		ECCF1H050C	Ceramic 50V 5P	1	
C8028,8029		VCYG1C104MR	Semiconductor 16V 0.1	2	
C8031		ECKF1H471KB	Ceramic 50V 470P	1	
			Combination Circuits		
			(Capacitor & Resistor)		
CR8001		EXEP820K332T	82PF 3.3KΩ	1	
CR8002		EXED103M821T	0.01μF 820Ω	1	
			Coils		
L8001		VLQEL05F270K	27μH	1	
L8002		VLQEL05F470K	47μH	1	
L8003		VLQEL05F331K	330μH	1	
L8004		VLQEL05F681K	680μH	1	
L8005		VLQEL05F101K	100μH	1	
L8006		VLQEL05F681K	680μH	1	
L8008		VLQEL05F150K	15μH	1	
L8009		ELM7Q207A		1	NV-370EG
L8010		VLQEL05F101K	100μH	1	NV-370EG
L8011		VLQEL05V151K	150μH	1	
			Delay Line		
DL8001		EFDBR124A13B		1	
			Filter		
FL8001		VLF0299		1	
FL8002		VLF0143		1	NV-370EG
			Crystal Oscillator		
XC8001		VSX0129A		1	or VSX0129B
			Miscellaneous		
JSA,JSB,JSC		VJS1180	Connectors 5P	3	
		VJF0022	Wire Saddle (Large)	1	
		VJF0035	Wire Saddle (Small)	1	
		VJF0052	Binder	6	
		VSC1068	Heat Sink	1	for Q1002
		XTV3+8J	Screw	1	for Q1002

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
		VEP05051A	Head Amp & Luminance (2)		
			P.C. Board		
			P.C.B. Ass'y		
IC3501		VEFY005		1	
			Integrated Circuit		
IC3502		AN6326N		1	
			Transistors		
Q3501		2SC2377		1	(C,D)
Q3502,3503		2SC2206		2	(A,B,C)
Q3504		2SB641		1	(P,Q,R,S,T)
					or 2SA937M(Q,R,S)
Q3505-3508		2SC2206		4	(A,B,C)
Q3509		2SD636		1	(P,Q,R,S,T)
					or 2SC2021M(Q,R,S,E)
Q3561,3562		2SC2206		2	(A,B,C)
			Diodes		
D3501		MA165		1	
D3502		RD3.3EB	Zener	1	
			Resistors		
R3501		ERDS2TJ102	1K	1	
R3502		ERDS2TJ152	1.5K	1	
R3503		ERDS2TJ471	470	1	
R3504		ERDS2TJ681	680	1	
R3505		ERDS2TJ122	1.2K	1	
R3508		ERDS2TJ102	1K	1	
R3509		ERDS2TJ154	150K	1	
R3510		ERDS2TJ152	1.5K	1	
R3511		ERDS2TJ392	3.9K	1	
R3512		ERDS2TJ331	330	1	
R3513		ERDS2TJ104	100K	1	
R3514		ERDS2TJ472	4.7K	1	
R3515		EROS2CKG1601	Metal 1.6K	1	
R3516		ERDS2TJ222	2.2K	1	
R3517		ERDS2TJ104	100K	1	
R3518		ERDS2TJ122	1.2K	1	
R3519		ERDS2TJ123	12K	1	
R3521		EVNK6AA00B13	Variable 1K	1	
R3522		ERDS2TJ471	470	1	
R3523		EROS2CKG5600	Metal 560	1	
R3524		ERDS2TJ682	6.8K	1	
R3525		ERDS2TJ122	1.2K	1	
R3526		EROS2CKG1201	Metal 1.2K	1	
R3527		EROS2CKG2200	Metal 220	1	
R3528		ERDS2TJ100	10	1	
R3529		ERDS2TJ682	6.8K	1	
R3530,3531		ERDS2TJ560	56	2	
R3532		ERDS2TJ100	10	1	
R3533		ERDS2TJ122	1.2K	1	
R3534		ERDS2TJ820	82	1	
R3535		ERDS2TJ683	68K	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
R3536,3537		ERDS2TJ152	1.5K	2	
R3538		ERDS2TJ152	1.5K	1	
R3539		ERDS2TJ152	1.5K	1	
R3540		ERDS2TJ391	390	1	
R3541		ERDS2TJ102	1K	1	
R3542		ERDS2TJ561	560	1	
R3543,3544		ERDS2TJ102	1K	2	
R3545		ERDS2TJ152	1.5K	1	
R3546		ERDS2TJ271	270	1	
R3547		ERDS2TJ122	1.2K	1	
R3548,3549		ERDS2TJ102	1K	2	
R3561		ERDS2TJ183	18K	1	
R3562		ERDS2TJ562	5.6K	1	
R3563		ERDS2TJ151	150	1	
R3564		ERDS2TJ121	120	1	
R3565		ERDS2TJ680	68	1	
R3566		ERDS2TJ471	470	1	
R3567		ERDS2TJ101	100	1	
R3568		ERDS2TJ680	68	1	
R3569		EVNK6AA00B12	Variable 100	1	
R3570		ERDS2TJ102	1K	1	
R3571		ERDS2TJ681	680	1	
R3572		ERDS2TJ122	1.2K	1	
R3573,3574		ERDS2TJ561	560	2	
R3575		EVNK6AA00B23	Variable 2K	1	
R3576,3577		ERDS2TJ102	1K	2	
			Capacitors		
C3501		ECEA1EK4R7	Electrolytic 25V 4.7	1	
C3502		ECEA1HKNR47	Electrolytic 50V 0.47	1	
C3503		ECEA1HK010	Electrolytic 50V 1	1	
C3504		ECEA0JK101	Electrolytic 6.3V 100	1	
C3505		ECCF1H120K	Ceramic 50V 12P	1	
C3506		ECEA0JK470	Electrolytic 6.3V 47	1	
C3507		ECEA1HK2R2	Electrolytic 50V 2.2	1	
C3508		VCYG1E103KR	Semiconductor 25V 0.01	1	
C3509		ECEA0JK101	Electrolytic 6.3V 100	1	
C3510		ECKF1H181KB	Ceramic 50V 180P	1	
C3511-3513		ECEA1HK010	Electrolytic 50V 1	3	
C3514		ECEA1EK4R7	Electrolytic 25V 4.7	1	
C3515		ECEA1HK2R2	Electrolytic 50V 2.2	1	
C3516		ECKF1H151KB	Ceramic 50V 150P	1	
C3517		ECKF1H122KB	Ceramic 50V 1200P	1	
C3521		VCYG1E103KR	Semiconductor 25V 0.01	1	
C3522		ECEA1CK470	Electrolytic 16V 47	1	
C3523		ECCF1H820K	Ceramic 50V 82P	1	
C3524		ECKF1H181KB	Ceramic 50V 180P	1	
C3525		VCYG1E333MR	Semiconductor 25V 0.033	1	
C3526,3527		VCYG1E472MR	Semiconductor 25V 4700P	2	
C3528		ECKZ1H103ZF	Ceramic 50V 0.01	1	
C3529		ECEA50Z1	Electrolytic 50V 1	1	
C3530		ECEA1CK100	Electrolytic 16V 10	1	
C3531,3532		ECEA1HK010	Electrolytic 50V 1	2	
C3533		VCYG1C104MR	Semiconductor 16V 0.1	1	
C3534		ECQM1H104JZ	Mylar 50V 0.1	1	
C3535		ECCF1H120K	Ceramic 50V 12P	1	
C3536		VCYG1C104MR	Semiconductor 16V 0.1	1	
C3537		ECEA1HK010	Electrolytic 50V 1	1	
C3538		ECEA0JK470	Electrolytic 6.3V 47	1	
C3539		ECKF1H151KB	Ceramic 50V 150P	1	
C3540		VCYG1E103KR	Semiconductor 25V 0.01	1	
C3541		ECKF1H271KB	Ceramic 50V 270P	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
C3542		VCKG1E431JA	Semiconductor 25V 430P	1	
C3543		ECCF1H560K	Ceramic 50V 56P	1	
C3544		ECCF1H180J	Ceramic 50V 18P	1	
C3545		VCYG1E103KR	Semiconductor 25V 0.01	1	
C3546		ECEA0JK470	Electrolytic 6.3V 47	1	
C3547		ECEA0JK330	Electrolytic 6.3V 33	1	
C3548		ECQB1H333KH	Mylar 50V 0.033	1	
C3549		ECCF1H560K	Ceramic 50V 56P	1	
C3561		ECEA0JK470	Electrolytic 6.3V 47	1	
C3562		VCYG1E122JR	Semiconductor 25V 1200P	1	
C3563		VCKG1E431JA	Semiconductor 25V 430P	1	
C3564		ECKF1H102KB	Ceramic 50V 1000P	1	
C3565		ECCF1H330K	Ceramic 50V 33P	1	
C3566		ECKF1H681KB	Ceramic 50V 680P	1	
C3567		ECKF1H102KB	Ceramic 50V 1000P	1	
C3568		ECEA0JK470	Electrolytic 6.3V 47	1	
C3569		VCKG1E391JA	Semiconductor 25V 390P	1	
C3570		VCYG1E103KR	Semiconductor 25V 0.01	1	
C3571,3572		ECCF1H100D	Ceramic 50V 10P	2	
C3573		ECQM1H154JZ	Mylar 50V 0.15	1	
C3574		ECKF1H102ZF	Ceramic 50V 1000P	1	
C3575,3576		ECQM1H104JZ	Mylar 50V 0.1	2	
C3577		ECCF1H150J	Ceramic 50V 15P	1	
C3578		ECQM1H104JZ	Mylar 50V 0.1	1	
C3579		ECQM1H274JZ	Mylar 50V 0.27	1	
C3580		ECCF1H060D	Ceramic 50V 6P	1	
C3581		ECCF1H120K	Ceramic 50V 12P	1	
			Combination Circuit		
			(Capacitor + Resistor)		
CR3501		EXEC390K222T	39PF 2.2KΩ	1	
CR3503		EXED561K561T	560PF 560Ω	1	
CR3504		EXED103Z682T	0.01μF 6.8KΩ	1	
			Coils		
L3501-3503		VLQEL05F101K	100μH	3	
L3504		VLQEL05F820K	82μH	1	
L3505		VLQEL05F151K	150μH	1	
L3507,3508		VLQEL05F101K	100μH	2	
L3509		VLQEL05F102K	1mH	1	
L3510		VLQEL05F180K	18μH	1	
L3512		VLQEL05F151K	150μH	1	
L3513		VLQEL05F471K	470μH	1	
L3514		VLQEL05F390K	39μH	1	
L3515,3516		VLQ0127	2.2μH	2	(Shield Type)
L3561		VLQEL05F6R8K	6.8μH	1	
L3562		VLQEL05F3R3K	3.3μH	1	
L3563		VLQEL05F6R8K	6.8μH	1	
L3564		VLQEL05F560K	56μH	1	
L3565		VLQEL05F101K	100μH	1	
L3566		VLQEL05F2R2K	2.2μH	1	
			Delay Line		
DL3501		VLD0061		1	
			Filters		
FL3501		VLF0186		1	
FL3502		VLF0187		1	
			Connectors		
P3501		VJP1229	2P	1	
			Miscellaneous		
		VKC0055	Hinge	1	
		VSC1058	Shield Case (Top)	1	
		VSC1059	Shield Case (Middle)	1	
		VSC1060	Shield Case (Bottom)	1	
		VEP06211B	Operation P.C. Board Unit		
			Integrated Circuit		
IC6501		MN1450BVF2		1	
			Transistors		
Q6501		2SB642		1	(Q,R,S)
Q6502-6504		2SD637		3	(Q,R,S,T)
					or 2SC2021M(Q,R,S,E)
			Diodes		
D6501		LN81RCPHL	LED	1	
D6502,6503		MA165		2	or 1SS133
D6504		RD7.5EB3	Zener	1	
D6505		RD5.6EB2	Zener	1	or EQA0206A
D6506		MA165		1	
			Resistors		
R6501		ERDS2TJ391	390	1	
R6502		ERDS2TJ301	300	1	
R6503		ERDS2TJ681	680	1	
R6504		ERDS2TJ122	1.2K	1	
R6505		ERDS2TJ272	2.7K	1	
R6506		ERDS2TJ472	4.7K	1	
R6507		ERDS2TJ822	8.2K	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
R6510		ERDS2TJ513	51K	1	
R6511		ERDS2TJ623	62K	1	
R6512		ERDS2TJ152	1.5K	1	
R6515		EVN3ACA00B14	Variable 10K	1	
R6516		ERDS2TJ103	10K	1	
R6517		ERDS2TJ563	56K	1	
R6518		ERDS2TJ472	4.7K	1	
R6519		ERDS2TJ104	100K	1	
R6520,6521		ERDS2TJ330	33	2	
R6522		ERDS2TJ223	22K	1	
R6523		ERDS2TJ103	10K	1	
R6524		ERDS2TJ223	22K	1	
R6525		ERDS2TJ152	1.5K	1	
R6526		ERDS2TJ471	470	1	
R6527		ERDS2TJ473	47K	1	
R6528		ERDS2TJ223	22K	1	
R6529		ERDS2TJ473	47K	1	
R6530		ERDS2TJ223	22K	1	
R6531		ERDS2TJ473	47K	1	
R6532,6533		ERDS2TJ223	22K	2	
			Capacitors		
C6501		ECEA1HK010	Electrolytic 50V 1	1	
C6502		ECCF1H470JU	Ceramic 50V 47P	1	
C6503		ECKF1H103KB	Ceramic 50V 0.01	1	
C6504		ECEA1CK100	Electrolytic 16V 10	1	
C6505		ECEA1EKL4R7	Electrolytic 25V 4.7	1	
			Switches		
S6502-6506		EVQQS307K		5	
S6510-6512		EVQQS307K		3	
S6515		VSP0145		1	
S6516		EVQQS307K		1	
			Connectors		
P6501		VJP1237	10P	1	
P6502		VJP1230	3P	1	
PJ1		VJS1179	3P	1	
			Display Tube		
DP6501		VSL0030B		1	
			Miscellaneous		
		VGQ0561	Remote Control Jack	1	
			Holder		
		VJF0172	Display Tube Holder (R)	1	
		VJF0185	Display Tube Holder (L)	1	
		VMX0469	Display Tube Spacer	2	
		VMP0393	Earth Clip	1	
		KL04	LED Spacer	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
		VEP07184A	Timer P.C. Board Unit		NV-370EG/B
			Integrated Circuit		
IC7501		MN1451BVK		1	
			Transistors		
Q7501,7502		2SD637		2	or 2SC1685
Q7503		2SD636		1	or 2SD637, 2SC1684,
					2SC1685, 2SC945
Q7504		2SB641		1	or 2SB642, 2SA564A
Q7505,7506		2SB642		2	or 2SA564A
Q7507		2SD636		1	or 2SD637, 2SC1684,
					2SC1685, 2SC945A
Q7508-7514		2SB642		7	or 2SA564A
Q7516		2SB642		1	or 2SA564A
Q7517		2SD636		1	or 2SD637, 2SC1684
					2SC1685, 2SC945A
Q7530-7534		2SD636		5	or 2SD637, 2SC1684,
					2SC1685, 2SC945A
			Diodes		
D7501-7510		MA166		10	
D7512-7520		MA166		9	
D7521-7524		LN048169PH	LED	4	
D7525-7527		MA166		3	
D7532		MA166		1	
D7568		LN28WPVT	LED	1	
			Resistors		
R7501		ERDS2TJ473	47K	1	
R7502		ERDS2TJ154	150K	1	
R7503		ERDS2TJ104	100K	1	
R7504		ERDS2TJ334	330K	1	
R7505		EVNK6AA00B25	Variable 200K	1	or EVN61AA00B25
R7506		ERDS2TJ124	120K	1	
R7507,7508		ERDS2TJ473	47K	2	
R7509		ERDS2TJ103	10K	1	
R7510-7513		ERDS2TJ473	47K	3	
R7514		ERDS2TJ102	1K	1	
R7515		ERDS2TJ473	47K	1	
R7516		ERDS2TJ391	390	1	
R7517,7518		ERDS2TJ223	22K	2	
R7519		ERDS2TJ103	10K	1	
R7520-7527		ERDS2TJ223	22K	8	
R7528		ERDS2TJ103	10K	1	
R7529-7531		ERDS2TJ223	22K	3	
R7550		ERDS2TJ2R7	2.7	1	
R7593		ERDS2TJ104	100K	1	
			Capacitors		
C7501		ECEA1HKR22	Electrolytic 50V 0.22	1	
C7502		ECCF1H100DC	Ceramic 50V 10P	1	
C7503		ECV1ZW20X53T	Trimmer 20P	1	
C7504		ECCF1H050C	Ceramic 50V 5P	1	
C7505		ECEA1AK330	Electrolytic 10V 33	1	
C7506		ECEA1HK4R7	Electrolytic 50V 4.7	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		Crystal Oscillator		
X7501	VSX0071A		1	
		Display Tube		
DP7501	VSL0027B		1	
		Switches		
SW7501	ESD14182		1	
SW7502-7508	EVQQS307K		7	
SW7509	VSP0145		1	
SW7510-7512	EVQQS307K		3	
		Miscellaneous		
	VGQ0417	Display Tune Holder	2	
	VGQ0458	Display Tube Spacer	2	
	VGU1026	Mode SW Knob	1	
	VEP07185A/B	**CH Preset P.C. Board Unit**		NV-370EG/B ⚠
		Integrated Circuits		
IC7502	MN1453VTK		1	
IC7503	M54836AP		1	
IC7504	µPC574JK		1	
		Transistors		
Q7518,7519	2SD636		2	or 2SD637, 2SC1684,
				2SC1685, 2SC945A
Q7520	2SB641		1	or 2SB642, 2SA564A,
				2SA733
Q7521,7522	2SB644		2	
Q7523	2SD637		1	2SC1685
Q7524	2SD637		1	or 2SC1685 NV-370EG
Q7525,7526	2SB641		2	or 2SB642, 2SA564A,
				2SA733 NV-370EG
Q7527,7528	2SB641		1	or 2SB642, 2SA564A,
				2SA733
Q7529	2SD636		1	or 2SD637, 2SC1684,
				2SC1685, 2SC945A
Q7535	2SB641		1	or 2SB642, 2SA564A,
				2SA733
		Diodes		
D7528	MA27WB		1	
D7530	MA27WB		1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
D7531	MA166		1	
D7533-7536	MA166		4	
D7537,7538	10E2		2	or ERB12
D7539-7542	MA166		4	
D7543-7554	MA166		12	NV-370EG
D7555-7567	MA166		13	
D7569-7571	MA166		3	
		Resistors		
R7532-7534	ERDS2TJ223	22K	3	
R7535,7536	ERDS2TJ473	47K	2	
R7537	ERDS2TJ223	22K	1	
R7538	ERDS2TJ473	47K	1	
R7539,7540	ERDS2TJ223	22K	2	
R7541	ERDS2TJ103	10K	1	
R7542	ERDS2TJ473	47K	1	
R7543,7544	ERDS2TJ102	1K	2	
R7545	ERDS2TJ274	270K	1	
R7546-7549	ERDS2TJ473	47K	4	
R7551	ERDS2TJ330	33	1	
R7552	ERDS2TJ153	15K	1	
R7553	ERDS2TJ820	82	1	
R7554	ERDS2TJ153	15K	1	
R7555	ERDS2TJ474	470K	1	
R7556	ERDS2TJ154	150K	1	
R7557-7563	ERDS2TJ223	22K	7	NV-370EG
R7564	ERDS2TJ102	1K	1	
R7565	ERDS2TJ103	10K	1	
R7566	ERDS2TJ102	1K	1	
R7579,7580	ERDS2TJ473	47K	1	
R7581	ERDS2TJ104	100K	1	NV-370EG
R7582	ERDS2TJ105	1M	1	NV-370EG
R7583	ERDS2TJ102	1K	1	
R7584-7592	ERDS2TJ472	4.7K	9	
		Capacitors		
C7507	ECCF1H560J	Ceramic 50V 56P	1	
C7508	ECEA1HK010	Electrolytic 50V 1	1	
C7509,7510	ECKF1H103ZF	Ceramic 50V 0.01	2	
C7511	ECEA1HK2R2	Electrolytic 50V 2.2	1	
C7512	ECEA1AK330	Electrolytic 10V 33	1	
C7513	ECEB1AU682	Electrolytic 10V 6800	1	
C7514	ECKF1H103ZF	Ceramic 50V 0.01	1	
C7515	ECCF1H560J	Ceramic 50V 56P	1	
C7516,7517	ECEA1HKR22	Electrolytic 50V 0.22	2	
C7518,7519	ECEA1HK010	Electrolytic 50V 1	2	
C7520	ECQM1H103JZ	Mylar 50V 0.01	1	
C7521	ECEA1HKR22	Electrolytic 50V 0.22	1	
C7522	ECEA1EK4R7	Electrolytic 25V 4.7	1	
C7523	ECEA1AK330	Electrolytic 10V 33	1	
		Switch		
SW7513	ESE153A		1	
		Connectors		
P7501	VJP1237	10P	1	
P7503	VJP1235	8P	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			Miscellaneous		
		EWEMH2650B15	Preset VR Unit	1	NV-370EG
		EWEMJ2650B15	Preset VR Unit	1	NV-370B
		VGH0133	Preset VR Name Plate	1	NV-370EG
		VGH0094	Preset VR Name Plate	1	NV-370B
		VGQ0560	Preset VR Case	1	
		VGF0095	Preset VR Case Sheet	1	
		VKF0295	Preset VR Case Blind Cover	1	
		VEP07186B/E	**TV Demodulator P.C. Board**		⚠
			Unit		
			Integrated Circuit		
IC701		BN5115		1	VIF IC
IC751		AN5215		1	SIF IC
			Transistors		
Q701		2SD636		1	(Q,R,S,T)
					or 2SD1684(Q,R,S,T)
Q702		2SB641		1	(Q,R,S,T)
					or 2SA564(Q,R,S,T)
Q703		2SD636		1	(S,T) or 2SD637(S,T)
Q707		2SD636		1	(Q,R,S,T)
					or 2SC1684(Q,R,S,T)
					NV-370B
Q708		2SD636		1	(Q,R,S,T)
					or 2SC1684(Q,R,S,T)
					NV-370B
Q709		2SA564A		1	(Q,R,S,T)
					or 2SA733(K,P,Q)
					NV-370B
Q710		2SD636		1	(Q,R,S,T)
					or 2SC1684(Q,R,S,T)
					NV-370B
Q7006		2SD636		1	(Q,R,S,T)
					or 2SC1684(Q,R,S,T)

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			Diodes		
D701-702		MA165		2	NV-370E/EG
D703		MA165		1	NV-370B
			Resistors		
R701		ERDS2TJ222	2.2K	1	
R702		EVN50AA00B23	Variable 2K	1	U. AGC VR ✓
R703		ERDS2TJ472	4.7K	1	
R704		ERDS2TJ392	3.9K	1	NV-370E/EG
R705		EVN50AA00B23	Variable 2K	1	V. AGC VR NV-370E/EG
R706		ERDS2TJ222	2.2K	1	NV-370E/EG
R707		ERDS2TJ393	39K	1	
R708		ERDS2TJ473	47K	1	
R711		ERDS2TJ274	270K	1	
R712		ERDS2TJ183	18K	1	
R713		ERDS2TJ392	3.9K	1	
R714		ERDS2TJ102	1K	1	
R715		ERDS2TJ391	390	1	
R716		ERDS2TJ561	560	1	
R717		ERDA2TJ102	1K	1	
R719		ERDS2TJ561	560	1	
R722		ERDS2TJ183	18K	1	
R723		ERDS2TJ562	5.6K	1	
R724		ERDS2CKG8200	Metal 820	1	
R725		ERDS2TJ470	47	1	
R726		ERDS2TJ680	68	1	
R727		ERDS2CKG1001	Metal 1K	1	
R728		EVN50AA00B14	Variable 10K	1	
R731		ERDS2TJ680	68	1	
R732		ERDS2TJ102	1K	1	
R733		ERDS2TJ270	27	1	
R734		ERDS2TJ332	3.3K	1	
R735		ERDS2TJ272	2.7K	1	
R738		ERDS2TJ561	560	1	
R740		ERDS2TJ103	10K	1	
R743		ERDS2TJ473	47K	1	NV-370B
R744-747		ERDS2TJ223	22K	4	NV-370B
R748		ERDS2TJ472	4.7K	1	NV-370B
R749		ERDS2TJ682	6.8K	1	NV-370B
R752		**ERD2FCG220**	**Fuse** 22	1	⚠
R754		ERDS2TJ152	1.5K	1	
R755		EVN50AA00B24	Variable 20K	1	Audio VR
R756		ERDS2TJ102	1K	1	
R761		ERDS2TJ102	1K	1	NV-370B
R762		ERDS2TJ271	270	1	NV-370B
R763		ERDS2TJ104	100K	1	NV-370B
R764		ERDS2TJ223	22K	1	NV-370B
R790		ERDS2TJ750	75	1	
R7014		ERDS2TJ102	1K	1	
R7015		ERDS2TJ103	10K	1	
			Capacitors		
C701		ECEA1CK200	Electrolytic 16V 22	1	
C702		ECEA1CK100	Electrolytic 16V 10	1	
C703		ECKF1H103ZF	Ceramic 50V 0.01	1	NV-370E/EG
C704		ECEA1CK330	Electrolytic 16V 33	1	NV-370E/EG
C705		ECEA50ZR68	Electrolytic 50V 0.68	1	
C706		ECEA1CK330	Electrolytic 16V 33	1	
C707,708		ECKF1H103ZF	Ceramic 50V 0.01	2	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
C709		ECQM1H224JZ	Mylar 50V 0.22	1	
C710		ECKF1H103ZF	Ceramic 50V 0.01	1	
C711,712		ECCF1H030C	Ceramic 50V 3P	2	
C713		ECCF1H121J	Ceramic 50V 120P	1	
C714		ECCF1H220J	Ceramic 50V 22P	1	
C715,716		ECKF1H103ZF	Ceramic 50V 0.01	2	
C717		ECCF1H150J	Ceramic 50V 15P	1	
C718		ECCF1H560JC	Ceramic 50V 56P	1	
C719		ECEA50Z1	Electrolytic 50V 1	1	
C720		ECKF1H103ZF	Ceramic 50V 0.01	1	
C721		ECEA1CK470	Electrolytic 16V 47	1	
C723		ECEA1EKL4R7	Electrolytic 25V 4.7	1	
C724		ECCF1H150J	Ceramic 50V 15P	1	
C726		ECCF1H680J	Ceramic 50V 68P	1	
C727		ECCF1H220J	Ceramic 50V 22P	1	
C730		ECCF1H390J	Ceramic 50V 39P	1	NV-370E/EG
C731		ECQB1H103KH	Mylar 50V 0.01	1	
C732		ECKF1H103ZF	Ceramic 50V 0.01	1	
C733		ECCF1H151JC	Ceramic 50V 150P	1	
C734		ECKF1H103ZF	Ceramic 50V 0.01	1	
C737		ECEA1CK220	Electrolytic 16V 22	1	
C739		ECKF1H103ZF	Ceramic 50V 0.01	1	
C743		ECQB1H103KH	Mylar 50V 0.01	1	
C745		ECKF1H103ZF	Ceramic 50V 0.01	1	NV-370B
C746		ECEA1CK220	Electrolytic 16V 22	1	
C747		ECKF1H103ZF	Ceramic 50V 0.01	1	NV-370B
C751		ECCF1H050C	Ceramic 50V 5P	1	
C753		ECQM1H473JZ	Mylar 50V 0.047	1	
C754		ECEA1CS101	Electrolytic 16V 100	1	
C755		ECCF1H390J	Ceramic 50V 39P	1	
C756		ECCF1H120J	Ceramic 50V 12P	1	
C757		ECKF1H561KB	Ceramic 50V 560P	1	
C758		ECCF1H820J	Ceramic 50V 82P	1	
C759		ECEA1CK100	Electrolytic 16V 10	1	
C761		ECQM1H393JZ	Mylar 50V 0.039	1	
			Coils		
L701		VLQEL05F220K	22μH	1	
L703		VLQEL05F150K	15μH	1	
L704		VLQEL05F470K	47μH	1	
L705		VLQEL05F560K	56μH	1	
L706		VLQEL05F820K	82μH	1	
			Transformers		
T701		EULHLB333		1	NV-370E/EG
T701		EULHLB360		1	NV-370B
T702		EIM7A511	Sound Trap	1	
T703		EIV7E016F	Selective	1	
T704		EIV7E016E	AFC	1	
[illegible]		EIS7E006A	SIF	1	
[illegible]		EIS7E006B	Detect	1	
			Ceramic Filters		
[illegible]		EFCS5R5MS4	Filter	1	or VLF0178 NV-370E/EG
[illegible]		EFCS6R0MS4	Filter	1	or VLF0179 NV-370B
[illegible]		EFCS5R5MW3	Trap	1	or VLF0182 NV-370E/EG
[illegible]		EFCS6R0MW3	Trap	1	or VLQ0183 NV-370B

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			Connectors		
P701		VJP1234	7P	1	
P704		VJP1237	10P	1	
			Miscellaneous		
		TNV77759F2	**Tuner Unit**	**1**	**NV-370E/EG** ⚠
		TNV87359F2	**Tuner Unit**	**1**	**NV-370B** ⚠
		VSC0742	Shield Case (Main)	1	
		VSC0743	Shield Case (Bottom)	1	
		VSC1052	Shield Case (Top)	1	
		VEP07189A	Timer P.C. Board Unit		NV-370E
			Integrated Circuit		
IC7501		MN1451BVK		1	
			Transistor		
Q7503		2SB641		1	or 2SB642
			Diodes		
D7108-7111		LN31GCPUHL	LED	4	
D7114-7117		LN31GCPUHL	LED	4	
D7501-7508		MA166		8	
D7510-7512		MA166		3	
D7516		MA166		1	
D7529		MA166		1	
D7532		RD6.8EB	Zener	1	
			Resistors		
R7509		ERDS2TJ102	1K	1	
R7512,7513		ERDS2TJ473	47K	2	
R7514		ERDS2TJ103	10K	1	
R7523		ERDS2TJ180	18	1	
R7529		ERDS2TJ104	100K	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			Capacitors		
C7501		ECEA1HKR22	Electrolytic 50V 0.22	1	
C7502		ECCF1H100DC	Ceramic 50V 10P	1	
C7503		ECV1ZW20X53T	Trimmer 20P	1	
C7504		ECCF1H050C	Ceramic 50V 5P	1	
C7506		ECKF1H103ZF	Ceramic 50V 0.01	1	
C7511		ECKF1H103ZF	Ceramic 50V 0.01	1	
C7512		ECEA1AK330	Electrolytic 10V 33	1	
			Crystal Oscillator		
X7501		VSX0071A		1	or VSX0071C
			Display Tube		
DP7501		VSL0017A		1	or VSL0017B
			Switches		
SW7501-7507		EVQQS307K		7	
SW7508		ESD14182		1	
SW7509		VSP0145		1	
			Miscellaneous		
		VGQ0458	Display Tube Spacer	2	
		KL04	LED Spacer	8	
		VGQ0472	Display Tube Holder (R)	1	
		VJF0174	Display Tube Holder (L)	1	
		VSP0119	Channel Select SW	1	
		VEP07190A	**CH Preset P.C. Board**		**NV-370E**△
			Unit		
			Integrated Circuit		
IC7101		μPC574JK		1	
			Transistors		
Q7101,7102		2SB644		2	
Q7103,7104		2SB641		2	or 2SB642
Q7105		2SD637		1	
Q7106		2SB641		1	
Q7501		2SD636		1	or 2SD637
Q7502		2SB641		1	or 2SB642
			Diodes		
D7101		MA27WB		1	
D7102-7106		MA165		5	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
D7119		MA165		1	
D7514		10E1		1	
D7515		LN28WPVT	LED	1	
D7526,7527		10E1		2	
			Resistors		
R7101		**ERQ14AJ220P**	**Metal** 22	1	△
R7102		ERDS2TJ472	4.7K	1	
R7103		ERDS2TJ104	100K	1	
R7104		ERDS2TJ470	47	1	
R7105		ERDS2TJ820	82	1	
R7106		ERDS2TJ153	15K	1	
R7107		ERDS2TJ222	2.2K	1	
R7108		ERDS2TJ103	10K	1	
R7109		ERDS2TJ223	22K	1	
R7110		ERDS2TJ153	15K	1	
R7111		ERDS1TJ473	47K	1	
R7112		ERDS2TJ334	330K	1	
R7113		ERDS2TJ331	330	1	
R7114-7116		ERDS2TJ392	3.9K	3	
R7117		ERDS2TJ103	10K	1	
R7118		ERDS2TJ561	560	1	
R7119		ERDS2TJ393	39K	1	
R7120		ERDS2TJ122	1.2K	1	
R7501		ERDS2TJ473	47K	1	
R7502		ERDS2TJ154	150K	1	
R7503		ERDS2TJ334	330K	1	
R7504		EVN61AA00B25	Variable 200K	1	
R7505		ERDS2TJ104	100K	1	
R7506		ERDS2TJ124	120K	1	
R7508		ERDS2TJ223	22K	1	
R7511		ERDS2TJ223	22K	1	
R7524		ERDS2TJ333	33K	1	
			Capacitors		
C7101		ECEA1JS101	Electrolytic 63V 100	1	
C7102		ECEA1HK010	Electrolytic 50V 1	1	
C7103		ECKF1H103ZF	Ceramic 50V 0.01	1	
C7104		ECEA1CK470	Electrolytic 16V 47	1	
C7105		ECEA1CK100	Electrolytic 16V 10	1	
C7505		ECEA1AS222	Electrolytic 10V 2200	1	
			Switch		
SW7101		ESE153A	AFC SW	1	
			Connectors		
P7501		VJP1237	10P	1	
P7503		VJP1235	8P	1	
			Miscellaneous		
		VGH0082	Preset VR Name Plate	1	
		EWEMH8650B15	Preset VR Unit	1	
		VGQ0560	Preset VR Case	1	
		VGF0095	Preset VR Case Sheet	1	
		VKF0295	Preset VR Case Blind	1	
			Cover		

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
		ENC87751	**RF Converter Unit**		**NV-370E/EG/B** △
		/ENC87752			
			Integrated Circuit		
IC1		AN3130		1	
			Transistors		
Q1		2SC2480		1	(UO-1)
Q2,3		2SC2570		2	or 2SC2671
			Diodes		
D1,2		1SS174		2	or 1SS86
D3,4		1SS135		2	or MA161
D5		MA161		1	NV-370B
			Resistors		
R1		ERJ8GCS391	Chip 390	1	
R2		ERD10TJ681	1/8W 680	1	
R3		EVN38CA00B14	Variable 10K	1	
R4		ERD25FJ121	Metal 120	1	
R5		ERD10TJ823	1/8W 82K	1	
R6		ERJ8GCS682	Chip 6.8K	1	
R7		ERD10TJ682	1/8W 6.8K	1	NV-370E/EG
R7		ERD10TJ472	1/8W 4.7K	1	NV-370B
R8		ERJ8GCJ273	Chip 27K	1	
R9		ERJ8GCJ101	Chip 100	1	
R10		ERD10TJ221	1/8W 220	1	
R11		ERD10TJ470	1/8W 47	1	
R12		ERD10TJ680	1/8W 68	1	
R16		ERJ8GCJ101	Chip 100	1	
R17,18		ERD10TJ151	1/8W 150	2	
R19		ERJ8GCS332	Chip 3.3K	1	
R20		ERJ8GCS471	Chip 470	1	
R21		ERJ8GCS150	Chip 15	1	
R23		ERJ8GCS331	Chip 330	1	
R24		ERJ8GCS561	Chip 560	1	
R25		ERD10TJ390	1/8W 39	1	
R26		ERD10TJ182	1.8W 1.8K	1	
R27		ERJ8GCS471	Chip 470	1	
R28		ERJ8GCS180	Chip 18	1	
R29		ERD10TJ331	1/8W 330	1	
R30		ERJ8GCS390	Chip 39	1	
R31		ERD10TJ750	1/8W 75	1	
R32		ERD10TJ561	1/8W 560	1	
R33		ERD10TJ273	1/8W 27K	1	NV-370B
R34		ERD10TJ271	1/8W 270	1	
R35		ERJ8GCS271	Chip 270	1	
R36		ERD10TJ271	1/8W 270	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
R37		ERJ8GCS271	Chip 270	1	
R38		ERJ8GCS122	Chip 1.2K	1	
R39		ERD10TJ221	1/8W 220	1	
R40		ERD10TJ000	0	1	
			Capacitors		
C1		ECUX1H100KC	Chip 50V 10P	1	
C2		ECEA1HK010	Electrolytic 50V 1	1	
C3		ECUX1E104ZF	Chip 25V 0.1	1	
C4		ECUX1H102MD	Chip 50V 1000P	1	NV-370E/EG
C4		ECUX1H103MD	Chip 50V 0.01	1	NV-370B
C5		ECUX1H561K	Chip 50V 560P	1	
C6		ECEA1HKR47	Electrolytic 50V 0.47	1	
C7		ECEA1CK100	Electrolytic 16V 10	1	
C8		ECUX1H102	Chip 50V 1000P	1	
C9		ECUX1H270K	Chip 50V 27P	1	
C10		ECUX1H070D	Chip 50V 7P	1	NV-370E/EG
C10		ECUX1H080D	Chip 50V 8P	1	NV-370B
C11		ECUX1H050D	Chip 50V 5P	1	
C12		CY2102PE	1000P	1	(Not Available) (UO-1)
C15		CX2140J	14P	1	(Not Available) (UO-1)
C17		CX2030C	3P	1	(Not Available) (UO-1)
C19		ECCF1HK010C	Ceramic 50V 1P	1	
C20		ECUX1H560J	Chip 50V 56P	1	NV-370B
C20		ECUX1H470J	Chip 50V 47P	1	NV-370E/EG
C21		ECUX1H050D	Chip 50V 5P	1	
C22,23		ECUX1H102MD	Chip 50V 1000P	2	
C25		ECCF1HK561K	Ceramic 50V 560P	1	
C26		ECCF1HK060D	Ceramic 50V 6P	1	
C27		ECUX1H561K	Chip 50V 560P	1	
C28		ECUX1H102MD	Chip 50V 1000P	1	
C29		CT2102MD	Semiconductor 1000P	1	NV-370B
C30		CT2102MD	Semiconductor 1000P	1	
C31		ECUX1H040D	Chip 50V 4P	1	
C32		ECUX1H560J	Chip 50V 56P	1	
C33,34		ECUX1H102MD	Chip 50V 1000P	2	
C35		ECUX1H030D	Chip 50V 3P	1	NV-370E/EG
C35		ECUX1H020D	Chip 50V 2P	1	NV-370B
C36		ECUX1E104ZF	Chip 25V 0.1	1	NV-370B
			Filter		
FL1		BEF10830		1	
			Transformers		
T1		TRCA502V	5.5MHz Oscillator	1	NV-370E/EG
T1		TRCA503V	6.0MHz Oscillator	1	NV-370B
T2		BRNA013V		1	
T3		TRVA010V		1	
T4,5		TRVA011V		2	
T6		TRVA010V		1	
			Switch		
SW1		ESD14515		1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			Connectors		
P1		VJP1243	3P	1	
P2		VJP1244	4P	1	
		VJB00976	Sensor LED P.C. Board		
D1501		GL450	LED	1	or LN59
		VMD0465	LED Holder	1	
		VJB01141	**Power Transformer P.C.**		**NV-370E/EG/B⚠**
		/01142	**Board**		
			Transistors		
Q1101		2SD1275		1	(P,Q)
Q1102		2SA684		1	(R)
			Diodes		
D1101-1105		**10E1**		**5**	or **ERB1201G1⚠**
D1106		RD13EB2	Zener	1	or EQA0212B
D1107,1108		**10E2**		**2**	or **ERB1202G1⚠**
D1109		RD30EB4	Zener	1	or EQA0230C
			Resistors		
R1101		**ERQ14LKR12**	**Metal 0.12**	**1**	⚠
R1102		**ERQ14LK1R5**	**Metal 1.5**	**1**	⚠
R1103		ERDS2TJ152	1.5K	1	
R1104		ERDS2TJ392	3.9K	1	
R1105		**ERQ12HKR56**	**Metal 1/2W 0.56**	**1**	⚠
			Capacitors		
C1101		ECEA1CS472	Electrolytic 16V 4700	1	
C1102		ECEA1ES222	Electrolytic 25V 2200	1	
C1103,1104		ECEA1JS101	Electrolytic 63V 100	2	
C1105		ECEA1HS470	Electrolytic 50V 47	1	
C1106		ECEA1CS470	Electrolytic 16V 47	1	
C1107		ECKF1H103ZF	Ceramic 50V 0.01	1	
			Connectors		
P702		VJP1229	2P	1	
P1001		VJP1231	4P	1	
P1002		VJP1230	3P	1	
P1003		VJP1141	2P	1	
P7502		VJP1232	5P	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			Miscellaneous		
		SJT777	**AC Cord Clamp Pin**	**2**	⚠
		TJC6320	**Fuse Holder**	**2**	⚠
		VJA0111	**AC Cord**	**1**	**NV-370E/EG⚠**
		VJA0112	**AC Cord**	**1**	**NV-370B⚠**
		VJF0052	Binder	1	
		VJF0107	**AC Cord Bushing**	**1**	⚠
		VMP0371	**Power Transformer Angle**	**1**	⚠
		VMX0226	**Ceramic Spacer**	**1**	⚠
		VMX0673	**Spacer**	**1**	⚠
		XTV3+8F	Screw	2	
		VJB00A53	Reel Sensor P.C. Board		
IC1501		ON2160	Photo Interrupter	1	
		VMX0645	Sensor Spacer	1	
		VJB00A54	Loading Motor Connection		
			P.C. Board		
			Capacitor		
C1504		VCYF1C333MR	Ceramic 16V 0.033	1	
			Connector		
P1512		VJP1246	6P	1	
P1513		VJP1242	2P	1	
P1514		VJP1229	2P	1	
P1515		VJP1242	2P	1	
		VJB00A55	Front Connection P.C.		
			Board		
			Connector		
P1508		VJP1246	6P	1	
P1509		VJP1242	2P	1	
P1510		VJP1244	4P	1	
P1511		VJP1243	3P	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
		VJB00A56	Takeup Photo Transistor		
			P.C. Board		
Q6552		PN150NV	Photo Transistor	1	
		VJB00A82	Front Loading Motor		
			Connection P.C. Board		
			Capacitor		
C1503		ECKF1H102KB	Ceramic 50V 1000P	1	
			Connector		
P1507		VJP1248	8P	1	
		VJB00A86	Power Transistor P.C.		
			Board		
			Transistor		
01004		**2SD1275**		1	**(P,Q)⚠**
			Capacitor		
C1004		ECKF1H821KB	Ceramic 50V 820	1	
			Connector		
P1506		VJP1243	3P	1	
		VJB00A94	Supply Photo Transistor		
			P.C. Board		
			Photo Transistor		
01502		PN150NV		1	
			Capacitor		
C1502		ECKF1H102KB	Ceramic 50V 1000P	1	
		VJB00A97	Rear Jack P.C. Board		
			Switch		
S3002		ESD14161		1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			Connector		
P3001		VJP1244	4P	1	
P3002		VJP1243	3P	1	
P3004		VJP1244	4P	1	
		VJB00B24	Remote Control Jack		
			P.C. Board		
J6501		VJJ0087	Jack	1	
		VEP09001D	Remote Control P.C.		
			Board		
			Resistors		
R9001		ERD10TJ122	1.2K	1	
R9002		ERD10TJ272	2.7K	1	
R9003		ERD10TJ472	4.7K	1	
R9004		ERD10TJ822	8.2K	1	
R9005		ERD10TJ513	51K	1	
R9006		ERD10TJ623	62K	1	
			Switches		
S9001-9004		EVQQJR		4	
S9006,9007		EVQQJR		2	

FILE No. VHS-T-83-9-050

Technical Information

VHS Video Cassette Recorder

MODEL NO.: NV-370 Series
EFFECTIVE FROM: Serial No. First Production

Subject: Replacement of the Upper Cylinder Unit

Be sure to observe the following procedures when replacing the Upper Cylinder Unit.

1. Removing the Upper Cylinder unit

First, remove two screws as shown in Fig. 1.
Then, unsolder 4 soldered portions on the P.C.Board indicated by arrows, and finally remove the Upper Cylinder unit by lifting it upwards.

Note: Soldered portion can be easily removed by using solder sucking wire, etc.

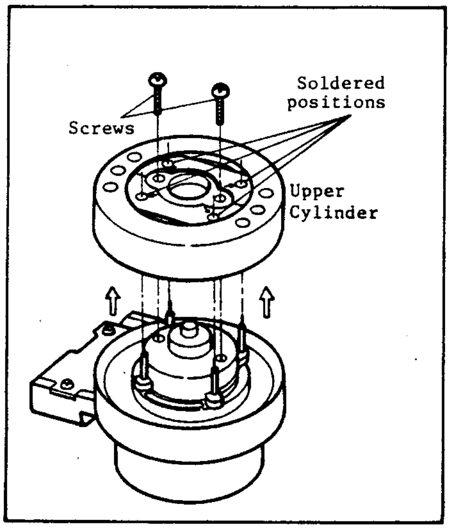

Screws
Soldered positions
Upper Cylinder

Fig. 1.

2. Reinstalling the Upper Cylinder unit

The Upper Cylinder unit can be reinstalled by reversing the removal procedure. However, when reinstalling, it be extremely careful so that both the white and green portions of the P.C.Board on the Upper Cylinder unit will correctly match the white and green portions of the P.C. Board Bottom Cylinder as shown in Fig. 2.

Note: If the Upper Cylinder unit is reversely installed, no colour will appear when playing back a pre-recorded tape.

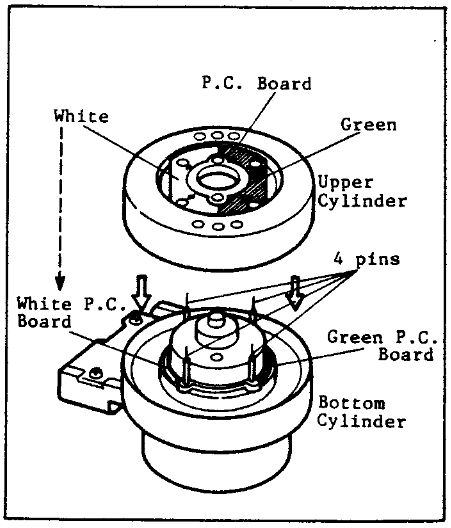

P.C. Board
White
Green
Upper Cylinder
4 pins
White P.C. Board
Green P.C. Board
Bottom Cylinder

Fig. 2.

VIDEO RECORDER DEPARTMENT
MATSUSHITA ELECTRIC IND. CO., LTD.
1-15 MATSUO-CHO, KADOMA OSAKA, 571 JAPAN